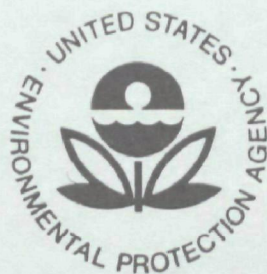


GUIDANCE FOR

**PREPARING A
FACILITY PLAN**

**MUNICIPAL WASTEWATER TREATMENT WORKS
CONSTRUCTION GRANTS PROGRAM**



REVISED - MAY 1975

**UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460**

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A FACILITY PLAN

Municipal Construction Division
Office of Water Program Operations
Environmental Protection Agency
Washington, D. C. 20460

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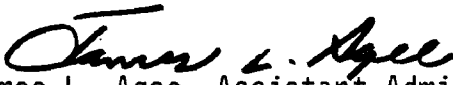
FOREWORD

This guidance is to assist with preparing a preliminary facility plan for construction of municipal sewage treatment works. The facility plan is the first step in a three step process required to complete treatment works with Federal grants from the Environmental Protection Agency. The second step is preparation of detailed design plans and specifications. The third and final step is construction of the treatment works. EPA will generally provide 75 percent of the eligible costs of the three steps in the grants program.

This grants program is now the largest public works program in the United States. The purpose of the facility plan is to assure that the treatment works built under this program are environmentally sound and cost-effective.

The complexity of the process of preparing facility plans will vary with local circumstances, the size and nature of needed facilities and the extent of previous planning efforts. EPA is preparing model facility plans, one for a community of about 5,000, and one for a very small community of only a few hundred persons. These model plans, which are scheduled to be available in mid-1975, will give an indication of the amount of detail appropriate for communities of these sizes.

Effective July 1, 1975, this guidance supersedes "Guidance for Facilities Planning" issued in January 1974. It presents a more streamlined and up-to-date description of the basic requirements and ways of meeting them. We welcome your suggestions for changes, additions or deletions which would help achieve the Agency's objective of timely preparation of facility plans of quality.


James L. Agee, Assistant Administrator
for Water and Hazardous Materials

GUIDANCE FOR PREPARING A FACILITY PLAN

FOREWORD

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1. INTRODUCTION

1.1 Purpose

This guidance suggests procedures for preparing a facility plan for publicly-owned treatment works. The plan is required before a municipality may obtain a Federal grant under the Federal Water Pollution Control Amendments of 1972 to prepare detailed design plans and specifications, and to construct the treatment works itself.

The approach used here is to describe the requirements in the applicable laws and regulations and suggest a planning process by which they can be met. The principal laws are the Federal Water Pollution Control Amendments of 1972 (FWPCA) and the National Environmental Policy Act (NEPA). Federal documents which provide guidance and assistance with preparing a facility plan are listed in Appendix A. These documents are referenced in the portion of this guidance to which they apply. They may be obtained from the Regional Offices listed in Appendix C. The principal regulation dealing with the facility planning process is enclosed with this guidance as Appendix B, "Water Pollution Control, Construction Grants for Waste Treatment Works" (see particularly Section 35.917).

The level of detail required in a facility plan will vary according to the nature, scale and location of the undertaking. Local municipalities and consultants should discuss the extent of planning required by their community with officials of the State and the Federal Environmental Protection Agency. Preapplication conferences of Federal, State and local officials to discuss how to proceed will be held to the extent resources permit.

1.2 Relationship of Facility Plans to Other Water Planning and Management Programs

1.2.1 State Continuing Planning Process and Basin Plans

Facility plans will conform to applicable approved basin plans prepared under Section 303 of FWPCA (references h, i, and u).

Under the State continuing planning process, "segments" of the nation's waterways have been classified initially as "water quality limited" or "effluent limited". "Water quality limited" segments are those which cannot be expected to meet established water quality standards even if all point sources achieve the effluent limitations required by Section 301 of FWPCA. "Effluent limited" segments are those where water quality standards can be achieved after all point sources meet the effluent limitations required by Section 301.

All publicly-owned treatment works which are constructed with Federal grant funds authorized after June 30, 1974, must achieve "best practicable waste treatment technology", as defined in reference o. Publicly-owned treatment works discharging to "effluent limited"

segments must, as a minimum, provide secondary treatment as defined in reference j. Such works shall provide additional treatment or include the use of other waste management techniques, when factors such as water quality standards for the affected waterway or availability of cost-effective technology warrant standards more stringent than secondary treatment. The precise discharge limitation for facilities on "water quality limited" segments will be determined in the basin planning process or, where this is not complete, in conjunction with the permit program.

1.2.2 Areawide Waste Treatment Management Plans

Areawide plans, authorized under section 208 of FWPCA, are to set forth a comprehensive management program for collection and treatment of wastes, and for controlling pollution from all point and non-point sources. Controls for abating these sources are to utilize a mix of land-use measures, management and regulatory programs, as well as structural methods. The portion of the areawide plan devoted to construction of publicly-owned treatment works in the future should select and describe planning and service areas and treatment systems, and provide supporting analysis for the selection.

Areawide planning requirements, therefore, overlap with facility planning requirements. The Agency's policy on relationships between the two programs during the period before final completion and approval of an areawide plan is as follows:

- a. New facility plans will be started and carried out as provided in the State priority list.
- b. The scope and funding of facility planning will be sufficient to collect all data and conduct all analyses necessary for expeditious completion of the facility plan.
- c. Facility and areawide planning will coordinate closely and share their data and analytical work, but completion of facility plans should not be dependent on the areawide planning process.
- d. After a facility plan is completed, the project should continue through the remaining steps of the grants process after opportunity for timely review and comment by the 208 planning Agency.
- e. After interim outputs have been developed and approved by the State and EPA for the areawide planning area, new facility plans must be consistent with the approved interim 208 outputs. The scope and funding of new facility planning should not extend to preparing a justification for the interim 208 outputs. This justification already will be available from the areawide planning process.

The following will be the policy after the areawide plan has been completed and approved, and the agency or agencies identified to construct, operate and maintain the municipal treatment facilities required by the plan:

- a. All facility plans underway at the time of approval will be completed by the agency which received the grant for the facility planning. The planning effort will continue as before approval unless the analysis in the approved 208 plan clearly justifies a change in required treatment levels or alternative approach on the basis of lower costs or major changes in environmental impacts.
- b. The scope and funding of new facility plans started after approval of the areawide plan will be sufficient to supplement the data and analysis in the areawide plan to the extent necessary to provide a complete facility plan as required by Section 35.917 of the construction grants regulation (Appendix B).
- c. New grants for facility plans will be made to the management agencies designated in the approved areawide plans. New facility planning will be consistent with the approved areawide plan.

1.2.3 Municipal Permits

Facility plans must, as a minimum, conform with all applicable permit requirements, and include a copy of the permit. Where a permit has not been issued, the facility plan should describe the applicable Federal and State effluent limitations. These limitations, if not known, should be obtained from State officials and the Environmental Protection Agency.

1.2.4 State Responsibilities

States play a central role in management of facility planning. The States' responsibilities are as follows:

- a. To prepare a State priority list for construction grants based on a determination of where and when treatment works will be required (see reference b).
- b. To determine, through the basin planning process, the effluent limitations which must be met by publicly-owned treatment works to comply with applicable requirements of Federal, State and local law.
- c. To delineate, on a preliminary basis, the boundaries of the facility planning area. These boundaries may be adjusted as a result of information obtained during the facility planning process.
- d. To review the plan of study to ensure that (1) the geographic planning area is adequate, (2) the nature and scope of the planning tasks are properly defined and cover only essential works, and (3) planning costs are reasonable.

e. To review facility plans and certify that (1) the plans conform with the requirements of the construction grants regulation (Appendix B); (2) the plan conforms with any existing final basin plans approved under section 303(e) of the Act; (3) any concerned areawide planning agency has been afforded the opportunity to comment on the plan; and (4) the plan conforms with any areawide treatment management plan completed and approved in accordance with section 208 of FWPCA.

2. FACILITY PLANNING AREA

The facility planning area for new wastewater treatment systems should be large enough to analyze the cost-effective alternative methods of waste transport, treatment, handling and disposal of sludge and disposal of treated effluent. It also should be large enough to analyze the environmental effects of alternatives, as required by the regulation, "Preparation of Environmental Impact Statements" (reference a). This regulation requires an environmental assessment as an integral part of a facility plan.

Note, however, that facility planning shall be conducted only to the extent that the Regional Administrator determines to be necessary to meet these requirements and to permit reasonable evaluation of grant applications and subsequent preparation of design construction drawings and specifications (see Section 35.917-4 of the Construction Grants Regulation in Appendix B).

An applicant for a facility planning grant need not hold current legal authority to implement all aspects of a facility plan as it may eventually develop. He must, however, have both the legal ability and the practical expectation of acquiring such authority at the proper point in the grants process. The proper time, in many cases, will be after the final waste management alternative has been chosen near the conclusion of the facility plan.

3. PLAN OF STUDY (POS)

The Plan of Study (POS) must be prepared and approved by the State and EPA before a facility plan is begun, and before a Federal grant may be approved for a facility plan (see Section 35.920-3 in Appendix B). The POS should briefly (generally in ten pages or less) describe the scope, schedule and costs of the proposed facility plan. The POS should:

- a. Provide a map or maps showing the planning area; the SMSA; the boundaries of political jurisdictions; boundaries of streams, lakes, water impoundments and water basins; and the service areas of existing waste treatment systems.
- b. List the responsible planning organizations and agreements or resolutions for conducting joint planning, if any.
- c. Provide the 1970 population in the planning area.
- d. Describe briefly why a grant for facility construction is necessary, including water quality problems and applicable effluent limitations if this information is readily available.
- e. Summarize briefly the unit processes in the existing system, if any, and communities and major industries served.
- f. Describe data, plans and other information available to assist with facility planning.

g. Say if the State is expected to certify that "excessive infiltration/inflow" does not exist (see part 4.2.4 below); or that additional data collection may be necessary. If the applicant believes that "excessive infiltration/inflow" exists and a detailed sewer evaluation will be necessary, the Plan of Study should so state.

h. Provide a schedule for completion of the specific tasks necessary to prepare the facility plan.

i. Estimate the cost for each task and the total costs for the facility plan.

4. FACILITY PLAN

A facility plan can be prepared in seven major steps. Each step is discussed in a separate section below, along with recommendations on how it can be completed. The applicability of these recommendations will vary with local circumstances.

Environmental considerations should be addressed during facility planning to meet the requirement for an environmental assessment of each project (see reference a). For example, information on existing and future environmental conditions should be gathered and assessed along with the information on other aspects of the existing and future situation (see section 4.2 and 4.3). Alternatives should be evaluated for environmental impact at the same time they are evaluated for costs and other impacts (see section 4.4). A separate section of the facility plan, however, should summarize the environmental considerations to demonstrate that they have been adequately covered and provide a single point of reference for a person interested in reviewing the environmental analysis. (See Part 7 of this Guidance.)

4.1 Step 1: Effluent Limitations

The facility plan should list the effluent limitations applicable to the facility being planned. These effluent limitations normally may be found in a municipal permit issued under the National Pollutant Discharge Elimination System. A copy of the municipal permit should be attached to the plan.

If the facility is on a "water quality limited" waterway (see section 1.2.1 above), the applicable water quality standards should be obtained from the State and briefly summarized in the plan, in addition to the effluent limitations necessary to meet the applicable water quality standards.

4.2 Step 2: Assess Current Situation

4.2.1 Introduction

The facility plan should briefly describe the existing conditions to be considered when weighing alternatives during the facility planning process.

4.2.2 Existing Conditions in the Planning Area Without the Project

The following existing conditions should be described to the extent necessary to analyze alternatives and determine the environmental impacts of the proposed actions. Only conditions which are applicable to the project should be discussed.

- a. Planning area description. planning area boundaries, political jurisdictions and physical characteristics, including climate, geology, soils, topography and hydrology.
- b. Organizational context. the role of all organizations involved in planning, financing and operating publicly-owned waste treatment works in the planning area.
- c. Demographic data. the 1970 census population, land-use patterns, and major employment generating activities.
- d. Water quality. existing quality, quantity, and uses of surface and ground water.
- e. Other existing environmental conditions. air quality, noise levels, energy production and consumption, wetlands, flood plains, coastal zones and other environmentally sensitive areas, historic and archaeological sites, other related Federal or State projects in the area, and plant and animal communities which may be affected, especially those containing threatened or endangered species.

Sources of information used to describe the existing environment and to assess future environmental impacts should be cited.

4.2.3 Existing Wastewater Flows and Treatment Systems

An inventory of existing wastewater treatment systems should be provided, including services, treatment plants, effluent disposal or reuse methods, sludge disposal methods, and flow and waste reduction measures currently being used, if any.

The discussion of flows should include average and peak wastewater flows, wastewater characteristics and wasteloads at key points in the system, dry and wet-weather flows, combined sewer overflows, and the location of bypasses. Available data on industrial and commercial flows should be summarized.

4.2.4 Infiltration and Inflow

The construction grants regulation (Appendix B) provides that the State may certify that excessive infiltration/inflow does not exist. The certification may be based on studies or other information available on the sewer system before facility planning begins, or gathered in the course of the facility planning process.

When the certification cannot be made because information is inadequate, an infiltration/inflow analysis should be conducted in accordance with EPA "Guidance for Sewer System Evaluation" (reference t). The purpose of the analysis is to estimate infiltration/inflow into the system; to approximate, on a preliminary basis, the costs of treating the infiltration/inflow versus the costs of rehabilitating the sewer system to eliminate the problem; and finally, to determine if the infiltration/inflow is excessive, as defined in reference t.

If the infiltration/inflow analysis demonstrates the existence or possible existence of excessive infiltration/inflow, a sewer system evaluation survey should be conducted, in accordance with reference t, to analyze the problems in more detail and determine needed corrective actions and their costs.

4.2.5 Performance of Existing System

The performance of existing wastewater treatment facilities should be evaluated to determine their operational efficiency. The evaluation should compare existing performance with optimum performance obtainable in terms of effluent quality and treatment capacity. The effect of the following factors on performance should be considered.

- a. Adequacy of plan design.
- b. Quality of operation and control.
- c. Caliber and number of operating personnel.
- d. Adequacy of sampling and testing program.
- e. Adequacy of laboratory facilities, and
- f. Quality of maintenance program.

4.3 Step 3: Assess Future Situation

4.3.1 Planning Period

The planning period is the time span over which wastewater management needs are forecast, facilities are planned to meet such needs, and costs are amortized. The facility planning period should extend 20 years beyond the date when the planned facility is scheduled to begin operation. The most cost-effective plan may provide for phasing construction of operable parts of the facility to meet changing conditions over the planning period.

Phased construction of treatment plants, in particular, will often be the most cost-effective approach. Consideration should be given to initial construction of a plant with a capacity to handle the wastewater flows projected for only a part of the 20 years planning period. The plan should provide in this case for adding more capacity later to treat the remaining increase in wastewater flows projected for the rest of the planning period.

Wastewater flows may be projected for years beyond the 20 year planning period when determining the most cost-effective design for interceptor sewers. Design flows must be fully justified in the facility plan.

4.3.2 Land Use

The facility plan should be carefully coordinated with applicable State, local and regional land-use management regulations, policies and plans. Projected land-use patterns and densities should be used as one basis for determining the optimum capacity and location of facilities.

Where land use plans have not been prepared for all or part of the planning area, an estimate of future land use patterns and densities should be prepared in consultation with existing planning agencies, zoning commissions and public officials.

Careful consideration should be given before providing sewerage for areas subject to flood hazards. The facility plan should be compatible with State and local programs for flood plain management.

4.3.3 Demographic and Economic Projections

Projections of economic and population growth should be used as one basis for estimating future wasteloads and flows.

For SMSAs, economic and population projections should follow the work of the Bureau of Economic Analysis incorporating the "Series E" projections of the Census Bureau. Reasons for departures should be fully documented.

Projections of economic and population growth for non-SMSA communities may be based on extension of current (1960 or 1965 to present) growth trends. Economic projections of industrial employment may assist with projections of population growth.

All projections should be consistent with those used for control of air quality, water resources management, and other environmental programs unless new information and analysis justify departures. Reasons for any departures should be documented.

Projections should be adjusted to reflect constraints on growth imposed by air quality implementation plans and land-use and development controls.

4.3.4 Forecasts of Flow and Wasteloads

The following factors should be considered when estimating wasteloads and flows for the future:

- a. projections of economic and population growth
- b. an estimate of non-excessive infiltration/inflow

- c. analysis of pollutant content and flows in the existing system.
- d. an analysis of the rate, duration, pollutant content and location of combined sewer overflows in the existing system during storms of different magnitude. The analysis should be linked to the drainage area tributary to the combined sewer system. This would facilitate forecasting of flow and wasteload increases from future changes in the nature and extent of the drainage area.
- e. projection of future changes in flow and wasteloads from industries to be served by the municipality. This projection should take into account reductions in industrial flow and waste which will result from Federal, State and local pretreatment requirements and from imposition of user and cost recovery charges.
- f. projection of gains possible from selected measures to reduce flow and wastes.

4.3.5 Future Environment of the Planning Area Without the Project

The future environmental conditions for the delineated planning area under the "no project" alternative should be predicted, covering the same areas considered under Section 4.2.2.

4.4 Step 4. Develop and Evaluate Alternatives

4.4.1 Baseline: Optimum Operation of Existing Facilities

The alternative of optimizing performance of existing facilities should be considered first. The level of treatment attainable with optimum performance should serve as a baseline for planning additions or modifications to the treatment system.

4.4.2 Regional Solutions

The possibility of a regional solution to wastewater treatment problems should be explored early in the planning process to reduce the number of options requiring detailed consideration to a manageable number. Regional solutions may include interconnection of facilities, construction of one or more large facilities to eliminate the need for many small facilities and joint management of facilities to improve operation and maintenance and reduce costs. Joint facilities may involve interceptors, treatment plants and sludge and effluent disposal systems.

Existing plans which address regional options should be referenced and important conclusions summarized in the facility plan. Further analysis of options will not be necessary if regional questions are resolved by existing plans.

Where regional questions have not been resolved, discharge combinations and effluent limitations related to each combination should be estimated by the applicant or the State. Any simplifying assumptions needed for such preliminary analyses should be documented. Monetary costs and environmental impacts should be estimated.

The analysis of regional solutions should address the following special considerations:

- a. effects of interceptor location on land use within and between urban areas, particularly where land is undeveloped.
- b. effects of alternative combinations on stream flows in the regions.
- c. possible limitation on future expansion due to unavailability of land.
- d. differences in reliability, operation and maintenance of facilities.
- e. environmental and economic costs of delays likely to be associated with efforts to achieve a regional solution.

A map of treatment system configurations should be prepared on the basis of the above analysis. It should show the boundaries of political jurisdictions and service areas for each treatment plant.

4.4.3 Alternative Waste Treatment Systems

Alternative waste treatment systems for each service area should be considered in addition to the regional questions outlined above.

First, the implication of the "no action" plan should be set forth with respect to potential effects on:

- a. surface water quality
- b. groundwater quality (if applicable)
- c. land use limitation if "no action" alternative is selected
- d. socio-economic factors (e.g., residential, industrial development and health hazards).

Second, the plan should consider, where applicable, the primary options for:

- a. flow and waste reduction
- b. configuration of sewers and interceptors
- c. treatment and disposal of effluent
- d. sludge disposal.

Options should be rejected from the outset if they fail to meet physical constraints of the planning area, such as climate, soils or topography, or if they are incompatible with air and water quality plans. These options should be presented in the plan, however, with a very brief summary of the reasons for their rejection.

Alternative waste treatment systems must be considered in accordance with information included in references o and s. The following three alternatives must be considered, as a minimum, to meet the requirements for best practicable waste treatment technology:

- a. treatment and discharge of effluent
- b. treatment and reuse
- c. land application

Options for treatment and discharge should, as appropriate, take into account and allow to the extent practicable for the application of technology at a later date to provide for the reclaiming or recycling of water or otherwise eliminate the discharge of pollutants.

Following initial screening of the alternative systems, a limited number of the most feasible options should be evaluated in detail. The evaluation should follow the guidance on monetary costs in Chapter 6 and on environmental and other considerations in the remainder of this chapter.

Proposals should be re-evaluated and compared after refinement and estimation of monetary costs, environmental effects and other considerations. Features should be added where practicable to each alternative to offset or mitigate adverse environmental impacts. Each alternative, including its costs and environmental effects, will then be displayed to inform the public and solicit public opinions to help select a plan.

4.4.4 Environmental Impacts

4.4.4.1 General

Alternatives should be evaluated and screened for their environmental impacts. Adverse impacts could be a basis for rejecting an option and, thus, reducing the number of alternatives. Other impacts may require further study and should be identified, to the extent possible, early in the planning process.

The evaluation should assess both beneficial and adverse primary and secondary environmental impacts. A definition and examples of each type follows:

4.4.4.2 Primary Impacts

Primary impacts are those directly related to construction and operation of the treatment works. Some examples are:

- a. Destruction of historical, archaeological, geological, cultural or recreational areas during construction.

- b. Destruction of sensitive ecosystems including wetlands and the habitats of endangered species during construction.
- c. Damage and pollution of surface waters due to erosion during construction.
- d. Displacement of households, businesses or services.
- e. Noise pollution, air pollution and odor and public health problems associated with construction and operation.
- f. Direct violation during construction or operation of Federal, State or local environmental and land-use statutes, or regulations and plans imposed by such statutes and regulations.

4.4.4.3 Secondary Impacts

Secondary impacts of a project are (1) indirect or induced changes in the patterns of land-use and population growth, and (2) other environmental effects resulting from changes in land use and population growth.

Examples of secondary impacts are:

- a. changes in the rate, density, or type of development, including residential, commercial, industrial development, or changes in the use of open space or other categories of land.
- b. air, water, noise, solid waste or pesticide pollution stemming from the induced changes in population and land use.
- c. damage to sensitive ecosystems (wetlands, habitats of endangered species) and environmentally protected areas (parks, historic sites) resulting from changes in population and land use.

Primary attention in the environmental assessment should be given to determining if secondary impacts will possibly contravene environmental and land use statutes or regulations, or standards, limitations and plans imposed by such statutes and regulations. Relevant Federal, State and local environmental and land use statutes and regulations should be considered.

4.4.5 Additional Guidance on Evaluation of Alternatives

4.4.5.1 Institutional Arrangements

Evaluation of alternatives should include a comparison of existing institutional arrangements and authorities with those necessary to implement each option. The organization to be responsible for management of the waste treatment facilities also should be identified with each option. Further, the costs to each jurisdiction for construction, operation and maintenance of the facilities should be estimated. These matters, as well as the total costs and effects of each proposal, should be discussed with representatives of local government units, and the views of other interested parties solicited during public review.

4.4.5.2 Industrial Service

Industrial use of municipal facilities should be encouraged when environmental and monetary costs would be minimized. Costs of separate treatment of industrial waste should be compared with costs of pretreatment plus the cost to the municipality for joint treatment, when industrial flow to be handled by municipal systems is significant. Pretreatment is required in accordance with Federal pretreatment standards (reference g) and any existing State and local standards. The analysis should focus on those industries which desire municipal service but are not yet so served when facility planning is initiated.

4.4.5.3 Flow and Waste Reduction

Some types of flow and waste reduction **measures** are listed below:

- a. measures for reducing sewer system infiltration/inflow
- b. household water-saving devices
- c. water meters
- d. land use and development regulations
- e. industrial reuse and recycling
- f. on-site (private) facilities such as septic tanks

Procedures for determining the cost effectiveness of measures for reducing infiltration/inflow are found in EPA "Guidance for Sewer System Evaluation" (reference t). The cost-effectiveness of water conservation measures can be determined by comparing the cost with resultant savings for both waste treatment and water supply.

4.4.5.4 Sewers

Alternative arrangements of interceptors and trunk lines should be compared to determine the most cost-effective configuration. Sewers in developing areas should be planned on the basis of anticipated changes in land use and density.

Analysis should be made, whenever possible, of the residential, commercial and industrial land use changes that a centralized project will induce.

The sizes of interceptors should be based on cost-effective analysis of alternative pipe sizes. The analysis should reflect the expected useful life of the pipe, all costs related to future pipe installation, and induced growth effects of initial provision of substantial excess capacity.

4.4.5.5 Sludge Disposal

Environmentally acceptable methods of sludge utilization and disposal include stabilization and subsequent land application for

agriculture, enhancement of parks and forests, reclamation of poor or damaged terrain, sanitary land fill, or sludge incineration and disposal of resulting ash. Ocean disposal may be allowed under special circumstances (subject to reference k).

4.4.5.6 Location of Facilities

Evaluation and choice of sites for treatment plants, interceptors, transmission lines, outfalls, pumping stations, and other major works should take into account the factors cited below and discussed further in references p, q, and y.

- a. minimize odors and locate away from residential areas which would be affected by odors
- b. minimize aesthetic problems by design and landscaping
- c. locate outfalls where they will not affect public water supply, shellfishing beds, and contact recreational waters. Where alternative sites are unavailable, special precautions must be taken in accordance with references p and y.
- d. locate treatment plants and other facilities in general outside of floodplains. Where such locations are not practicable or would lead to excessive costs, the plant and equipment will be protected against flooding as described in reference p.

4.4.5.7 Revision of Wasteload Allocation

Wasteload allocations are the basis for determining effluent limitations to be achieved by a treatment plant. They are normally prepared as part of the State basin planning process and are reflected in the discharge permit. Facility planning may result in a change in the discharge locations and the wasteload distribution among the locations. The wasteload allocation, in this case, should be reviewed by the State or EPA and modified to reflect the configuration of discharges in the proposed plan.

4.4.5.8 Phased Construction

Adding capacity in phases during a planning period will be more cost-effective in some cases than providing sufficient capacity in initial construction for the entire planning period. A method for cost analysis of phased development is discussed in Chapter 6. Factors to be considered are:

- a. relative cost of providing excess capacity initially compared with the present worth of deferred costs for providing capacity when needed.

- b. uncertainties of projected long-term wastewater flows, and possible technological advances or flow and waste reduction measures which may limit need for excess capacity.

Modular development of operable components of a treatment plant is advisable in areas where high growth rates are projected, where treatment must become more stringent later in the planning period, or where existing facilities are to be used initially but phased out later.

4.4.5.9 Flexibility

Facility planning should consider providing sufficient land and choosing layouts and siting to allow for expansion of the plant to handle unforeseen increases in wastewater flows and required treatment levels.

Interceptors and collection systems may be planned to meet unforeseen expansions of the service area. Consideration should be given, for example, to obtaining extra sewer rights-of-way for staged parallel pipes and pipe extensions and temporary treatment plants.

4.4.5.10 Reliability

Emphasis on reliability should focus on the most critical processes in accordance with the requirements in reference p.

4.5 Step 5. Select Plan

4.5.1 Selection Process

The public should be provided with alternative proposals, and a public meeting or hearing held to explain each proposal and obtain the views of all concerned (see Chapter 5). The opinions expressed should be weighed with estimated environmental effects, monetary costs, feasibility, resources and energy use, and reliability. The alternative proposals should be ranked on the basis of these considerations and a plan selected. Additional guidance on selection of a plan is provided in Chapter 8.

4.5.2 Environmental Impacts of the Selected Plan

The primary and secondary impacts of the selected plan should be summarized. Special attention should be given in the summary to the following:

- a. Any unavoidable adverse impacts resulting from the project.
- b. Relationship between local short term uses of the environment and the maintenance and enhancement of long-term productivity. This should include a description of the extent to which the action involves tradeoffs between short term environmental gains at the expense of long term gains or vice-versa, and the extent to which the proposed action forecloses future options. Special attention should be given to effects which narrow the range of future uses of land and water resources or pose long-term risks to health or safety.
- c. Irreversible and irretrievable commitments of resources. An evaluation should be made of the extent to which the proposed action requires commitment of construction materials, man-hours, energy and other resources, and curtails the range of future uses of land and water resources.
- d. Steps to minimize adverse effects. Structural and nonstructural measures, if any, should be described to mitigate or eliminate significant adverse effects on the human and natural environments.

4.6 Step 6: Preliminary Design of Treatment Works

Preliminary engineering designs will be prepared in accordance with references p, q, and y for those treatment works proposed for initial construction and scheduled for preparation of drawings and specifications. Such information would include, as appropriate, a schematic flow diagram, unit processes, plant site plans, sewer pipe plans and profiles, and design data regarding detention times, flow rates, sizing of units and so forth. It would also include a summary of requirements for operation and maintenance of the treatment works. Cost estimates for final design, preparation of plans and specifications, and construction of the treatment works, together with a schedule for completion of all such work, should be presented.

4.7 Step 7: Arrangements for Implementation

Following selection of plan and design, existing institutional arrangements should be reviewed and a financial program developed, including preliminary allocation of the costs among various classes of users of the system (see Appendix B). Agreement should be reached among participating entities on arrangements for implementing the plan. The State and Regional Administrator may approve the plan, however, even in the absence of final agreement on such arrangements.

A preliminary plan of operation should be prepared to provide for staffing, management, training, sampling and analysis for effective operation and maintenance of the facility.

5. PUBLIC PARTICIPATION

5.1 Introduction

Minimum requirements for the public role in facility planning are described in the Construction Grants regulation (Appendix B) and the regulation entitled "Public Participation in Water Pollution Control" (reference f). The public should participate from the beginning in facility planning so that interests and potential conflicts may be identified early and considered as planning proceeds.

5.2 Relationships between Planner and Public

The planner should define issues and analyze information so that the public will clearly understand the costs and benefits of alternatives considered during the planning process. He also should ensure that the interests of a broad spectrum of the public are represented in the planning process.

The public can be involved through a variety of means, including the following:

- | | | |
|------------------------------|------------------|--------------|
| -advisory groups | -public hearings | -news media |
| -information contacts | -task forces | -speeches |
| -correspondence | -workshops | -seminars |
| -interviews | -exhibitions | -depositions |
| -liaison with citizen groups | -mailings | -surveys |
| -public meetings | -newsletters | -polls |

5.3 Requirement for Public Hearings

A public hearing must be held on the facility plan unless EPA has waived the requirement in advance (see section 35.917-5 of Appendix B). The location of the hearing should be easily accessible and facilitate attendance and testimony by a cross-section of interested or affected organizations and interests. Notice will generally be given at least

thirty calendar days before the hearing is to be held to obtain formal comments of all concerned interests on the alternative proposals. It is suggested that the notice include mention of where information on the facility plan may be obtained before the hearing.

5.4 Summary of Public Participation

A report summarizing public participation should be prepared and submitted as part of the facility plan. It should as a minimum contain a brief description of the views expressed at any public hearings held on the project. It also may describe other measures taken to provide for, encourage concerned interests; and the disposition of the issues raised.

6. EVALUATION OF COSTS

6.1 Introduction

Appendix A to the construction grants regulation (see Appendix B in this guidance) describes basic methodology for calculation of direct monetary costs. This chapter provides supplemental guidance for applying this methodology in practice.

6.2 Sunk Costs

Appendix A to the construction grants regulation provides comprehensive instructions for cost evaluation, except with respect to sunk costs. Any investments or commitments made prior to our concurrent with facility planning will be regarded as sunk costs and not included as monetary costs in the plan. Such investments and commitments include:

- a. investments in existing wastewater treatment facilities and associated lands even though incorporated in the plan.
- b. outstanding bond indebtedness.
- c. cost of preparing the facility plan.

6.3 Present Worth and Equivalent Annual Costs

The following examples show how to calculate present worth and equivalent annual costs for a project. Present worth may be thought of as the sum, which if invested now at a given rate, would provide exactly the funds required to make all necessary expenditures during the life of the project. Equivalent annual cost is the expression of a non-uniform series of expenditures as a uniform annual amount to simplify calculation of present worth. Detailed procedures for making these calculations are well known and explained in such books as Principles of Engineering Economy by Eugene L.

Grant and W. Grant Ireson (reference aa), and Economics of Water Resource Planning by L. Douglas James and Robert Lee (reference bb).

The three cases described below include: (1) a simplistic one, assuming constant O & M costs; (2) a case with varying O & M costs; and (3) a third case assuming varying O & M, phased construction and a positive salvage value. Note that the second and third cases actually compare two alternatives for treating a given community's waste.

In order to perform the following analysis, you will need a table of 7.0 percent compound interest factors and a table of factors to compute the present worth of a gradient series. These tables may usually be found in an engineering economics textbook.

The interest rate of 7.0 percent is used for these examples only. The actual interest rate which must be used for evaluating costs in a facility plan is published annually by the United States Water Resources Council (see reference 1).

6.4 Example 1: Constant O & M Costs

GIVEN:

sewage treatment plant #1
 capacity: 10 mgd
 average flow through plant: 9 mgd
 planning period: 20 years
 salvage value at the end of 20 years: \$0
 initial cost of plant: \$3 million
 average annual operation and maintenance cost: \$190,000
 interest rate: 7.0 percent

DETERMINE: Present worth and equivalent annual cost of this plant over 20 years.

METHOD: Present worth equals initial cost plus the present worth of the operating and maintenance costs. Equivalent annual costs equals the present worth times the appropriate capital recovery factor.

Step 1

Initial cost = \$3,000,000

Step 2

Present worth of annual O & M cost equals annual O & M costs times the uniform series present worth factor @ 7.0% for 20 years. Thus:

\$190,000 (10.594) = \$2,013,000

Step 3

Sum of numbers obtained in the above steps yields present worth

initial cost =	\$3,000,000
present worth of O & M cost =	\$2,013,000
present worth =	<u>\$5,013,000</u>

Step 4

To find equivalent annual cost, multiply present worth obtained above times the capital recovery factors @ 7.0% for 20 years. Thus:

\$5,013,000 (.09439) =	<u>\$ 474,000</u>
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is the average annual equivalent cost of the plant over 20 years.

6.5 Example 2: Varying O & M CostsGIVEN:

sewage treatment plant #2
 capacity: 10 mgd
 average flow through plant: increase linearly from 2 mgd to 10 mgd over 20 years
 planning period: 20 years
 salvage value at end of 20 years: \$0
 initial cost of plant: \$3,000,000
 constant annual operation and maintenance cost: \$126,000
 variable annual operation and maintenance cost: increases linearly from \$0 to \$68,000 in year 20
 interest rate: 7.0 percent

DETERMINE: Present worth and average annual equivalent cost of this plant over 20 years.

METHOD: Present worth equals the sum of initial cost, present worth of constant O & M cost, and the present worth of the gradient series of the variable O & M cost. Equivalent annual cost is derived as in the first case.

Step 1

Initial cost =	<u>\$3,000,000</u>
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Step 2

To find the present worth of operating costs, it will be necessary to calculate the present worths of the constant costs and the variable costs separately.

a. Present worth of constant annual costs equals that cost times the uniform series present worth factor @ 7.0% for 20 years. Thus:

$$\$126,000 (10.594) = \underline{\$1,335,000}$$

b. Present worth of a variable cost increasing linearly is found by first finding the amount of increase per year. This amount is \$68,000/20 years or \$3,400 per year. This increase is known as a gradient series. This series times the correct gradient series present worth factor @ 7.0% for 20 years yields the present worth of the variable cost. Thus:

$$\$3,400 (77.5091) = \underline{\$ 264,000}$$

Step 3

Sum of numbers obtained in the steps above yields present worth:

initial cost =	\$3,000,000
present worth of constant O & M costs	\$1,335,000
present worth of variable O & M costs	\$ 264,000
present worth =	<u>\$4,599,000</u>

Step 4

As before, the present worth just derived times the capital recovery factor @ 7.0% for 20 years will yield the average annual equivalent cost. Thus:

$$\$4,599,000 (.09439) = \underline{\$ 434,100}$$

which is the average annual equivalent cost of the plant for 20 years.

6.6 Example 3: Varying O & M Costs, Phased Construction, and Salvage Value

GIVEN:

sewage treatment plant #3
 capacity: years 1-10, 5 mgd; years 11-20, 10 mgd
 average flow through plant: increases linearly from 2 mgd to 10 mgd over 20 years
 planning period: 20 years
 salvage value at the end of 20 years: \$750,000
 initial cost of plant (5 mgd): \$2,000,000
 cost to upgrade at year 10 to 10 mgd: \$1,500,000
 operation and maintenance costs:

- a. constant annual O & M cost, years 1-10: \$84,000
- b. variable annual O & M cost, years 1-10: increases linearly from 0 - \$29,000 in year 10
- c. constant annual O & M cost, years 11-20: \$165,000
- d. variable annual O & M cost, years 11-20: increases linearly from 0 to \$29,000 in year 20

interest rate: 7.0 percent

DETERMINE: Present worth and annual equivalent cost of this plant over 20 years.

METHOD: Present worth is derived as in the previous example; however, this time calculate O & M costs from year 1 to 10 and O & M costs from year 11-20 separately. It is necessary also to add the present worth of the expansion and subtract the present worth of the salvage value from the present worth of the costs. Average annual equivalent costs are calculated as before.

Step 1

Initial cost = \$2,000,000

Step 2

Calculate the present worth of the O & M costs as follows:

a. Present worth of constant annual cost years 1-10 equals given cost times uniform series present worth factors @ 7.0% for 10 years. Thus:

\$84,000 (7.024) = \$ 590,000

b. Present worth of the variable O & M costs years 1-10 equals the gradient series (\$2900) times the present worth factor of a gradient series @ 7.0% for 10 years. Thus:

\$2,900 (27.7156) = \$ 80,400

c. The present worth of the constant O & M costs year 11-20 are first calculated as in (a) above using the given cost for years 11-20. This, however, yields present worth in year 11 which must be converted to present worth in year 1. This is accomplished by multiplying the present worth (year 11) times the single payment present worth factor @ 7.0% for 10 years (.5083). Thus, present worth in year 1 equals:

\$165,000 (7.024)(.5083) = \$ 589,100

d. The present worth of the variable O & M costs years 11-20 are first calculated as in (b) above using the gradient series for years 11-20 which is \$2900. This yields the present worth in year 11 which again must be converted to present worth in year 1 by multiplying the present worth (year 11) times the single payment present worth factor @ 7.0% for 10 years (.5083). Thus:

$$\$2,000 (27.7156)(.5083) = \underline{\$ 40,900}$$

Step 3

To determine the present worth of the upgrade cost which occurs at year 10, multiply the upgrade cost times the single payment present worth factors @ 7.0% for 10 years. Thus:

$$\$1,500,000 (.5083) = \underline{\$ 763,000}$$

Step 4

The present worth of the salvage value at the end of 20 years equals that value times the single payment present worth factor @ 7.0% for 20 years. Thus:

$$\$750,000 (.2584) = \underline{\$ 194,000}$$

Step 5

The sums of the values obtained in Steps 1, 2, and 3 minus the value obtained in Step 4 will equal the present worth of the plan. Thus:

initial cost =	\$2,000,000
present worth of constant O & M year 1-10	590,000
present worth of variable O & M year 1-10 =	\$ 80,400
present worth of constant O & M year 11-20 =	\$ 589,100
present worth of variable O & M year 11-20 =	40,900
present worth of upgrade at year 10 =	<u>\$ 763,000</u>
TOTAL	\$4,063,400

Subtract from the total the present worth of salvage value

present worth of salvage value =	- \$ 194,000
present worth of plant =	<u>\$3,869,400</u>

Step 6

As before, the present worth just derived times the capital recovery factor @ 7.0% for 20 years will yield the average annual equivalent cost. Thus:

$$\$3,869,400 (.09439) = \underline{\$ 365,200}$$

which is the average annual equivalent cost of the plant over 20 years.

7. ENVIRONMENTAL EVALUATION

7.1 Purpose

This part summarizes the requirements for evaluation of environmental impacts in the facility planning process and describes the reasons for these requirements.

The environmental evaluation serves two purposes:

- a. to provide comparative data to assist selection of the best alternative plan.
- b. to meet the requirements for an environmental assessment in the regulation published by EPA, "Preparation of Environmental Impact Statements" (reference a).

7.2 Facility Planning and the Environmental Assessment

The facility plan should contain sufficient information to meet the requirements for an environmental assessment in reference a. Environmental considerations should be addressed during each step of the facility planning process. A separate section of the plan, however, should summarize environmental considerations.

7.3 Environmental Impact Statements

The Regional Administrator may determine while the facility plan is in preparation or after it is completed and submitted to EPA for approval that the project is highly controversial or may have significant adverse environmental effects. EPA will prepare an environmental impact statement in these cases in accordance with the regulation, "Preparation of Environmental Impact Statements" (reference a). The applicant may be asked to provide supplemental information on the project to assist with preparation of the Environmental Impact Statement.

7.4 Environmental Considerations

The facility plan should contain a summary of environmental considerations. The summary should include references to other portions of the plan where these considerations are discussed in more detail.

The following are the major topics to be discussed in the summary:

- a. Description of the existing environment without the project (see Section 4.2.2 in this Guidance).
- b. Description of the future environment without the project (see Section 4.3.5).
- c. Evaluation of alternatives (see Section 4.4.4).
- d. Environmental impacts of the proposed action, including steps to minimize adverse effects (see Section 4.5.2).

8. PLAN SELECTION

8.1 Introduction

This chapter discusses the principal considerations for selecting a plan. It assumes that each of the alternatives being compared would, if implemented, result in compliance with all the applicable regulatory requirements (i.e., effluent limitations, load allocations, compliance schedules, and so forth).

8.2 Comparison and Ranking of Proposals

Plan selection will involve making choices among alternatives based on a display of the significant costs, effects and benefits of each. Common units are lacking for measuring environmental, social, economic and other costs, and therefore selection of the most cost-effective alternative requires careful judgment.

Figure 1 provides an example of how costs and effects may be displayed. The effects should be listed, wherever possible, in quantitative terms, and be based on the supporting analysis elsewhere in the plan. Where quantification is not possible, the comparison should be made by brief narrative description.

The alternatives may be ranked after they are displayed to aid final selection of a plan.

The following are suggestions on the ranking procedure:

- a. Environmental effects: All significant primary and secondary effects should be weighed to derive a value judgment as to the net overall effect of each alternative relative to other plans. Alternatives which have secondary effects with a high potential for contravening an environmental or land-use statute or regulation, or plan imposed by such statute or regulation should be ranked below those which do not.
- b. Monetary costs: Total costs should be the primary factor in determining the cost-effectiveness of the plan.
- c. Implementation capability: The ability of and agreement among the State, regional and local governmental units or management agencies to implement the alternatives should be weighed carefully. The necessary institutions must exist or be created in time to carry out the plan, and the local governmental unit must be capable of bearing the local share of the costs.
- d. Other considerations: Each plan must meet applicable regulatory requirements, and design and reliability criteria. Performance better than these minimal standards should not be taken into account when selecting an alternative unless environmental and monetary costs and benefits, and the feasibility of implementing the alternatives are roughly equal. Other considerations, in other words, may be used to break ties.

These other considerations include the contribution to water quality objectives beyond regulatory requirements, reliability, use of resources and energy, and public acceptability.

Figure 1

COSTS AND BENEFITS OF ALTERNATIVE PROPOSALS

	<u>PROPOSALS</u>			
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
1. Environmental Effects				
a. Primary				
b. Secondary				
2. Monetary Costs				
a. Capital costs				
1. public				
2. total				
b. O & M costs				
1. public				
2. total				
c. Net revenue (public)				
d. Average annual costs				
1. public				
2. total				
3. Implementation Capability				
a. Institutional				
b. Financial				
c. Legal				
4. Other considerations				
a. Contributions to Water Quality Objectives and Other Water Management Goals				
b. Energy and Resources Use				
1. Energy (power)				
2. Chemicals				
3. Land commitment for planned features				
c. Reliability				
1. Frequency of plant upsets				
2. Frequency of spills				
3. Frequency of effects of combined sewer overflows				

9. FORMAT FOR SUBMISSION OF PLAN

9.1 Outline of Plan

The following outline for the plan is suggested. It meets the requirements of the Construction Grants regulation (Appendix B) and follows the planning steps presented in this guidance. Items inapplicable to a specific case may be deleted.

1. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS
2. INTRODUCTION
 - 2.1 Study Purpose and Scope
 - 2.2 Planning Area (Map)
3. EFFLUENT LIMITATIONS (Section 4.1)
4. CURRENT SITUATION (Section 4.2)
 - 4.1 Conditions in Planning Area
 - 4.1.1 Planning area description
 - 4.1.2 Organizational context
 - 4.1.3 Demographic and land-use data
 - 4.1.4 Water quality and uses
 - 4.1.5 Other environmental conditions
 - 4.2 Existing Wastewater Flows and Treatment Systems
 - 4.3 Infiltration and Inflow
 - 4.4 Performance of Existing System
5. FUTURE SITUATION (Section 4.3)
 - 5.1 Land Use
 - 5.2 Demographic and Economic Projections
 - 5.3 Forecast of Flow and Waste Load
 - 5.4 Future Environment of the Planning Area Without the Project
6. ALTERNATIVES (Section 4.4)
 - 6.1 Optimum Operation of Existing Facilities
 - 6.2 Regional Solutions
 - 6.3 Waste Treatment Systems
 - 6.4 Evaluation (monetary, environmental, implementation)
7. PLAN SELECTION (Section 4.5)
 - 7.1 Views of Public and Concerned Interests on Alternatives
 - 7.2 Evaluation and Ranking of Proposals
 - 7.3 Selected Plan (major feature summary) and Reasons for Selection
 - 7.4 Environmental Impacts of Selected Plan

8. COST ESTIMATES, PRELIMINARY DESIGNS (Section 4.6)
 - 8.1 Description of Design, with Maps
 - 8.2 Summary of Cost Estimates
9. ARRANGEMENTS FOR IMPLEMENTATION (Section 4.7)
 - 9.1 Institutional Responsibilities
 - 9.2 Implementation Steps
 - 9.3 Operation and Maintenance
 - 9.4 Financial Requirements
10. SUMMARY OF ENVIRONMENTAL CONSIDERATIONS (Section 7)
 - 10.1 Existing Environmental Conditions
 - 10.2 Future Environment Without the Project
 - 10.3 Evaluation of Alternatives
 - 10.4 Environmental Effects of Selected Plan

9.2 Appendices

The following information, cross-referenced in the text of the plan, may be placed in appendices:

- a. Preliminary designs, technical data and cost estimates for alternatives.
- b. Agreements, resolutions and comments.
- c. Supplemental engineering feasibility data on the details of the adopted plan.
- d. Infiltration/inflow analyses.
- e. Sewer evaluation surveys.
- f. Copy of the permit for the facility.

For a simple planning situation, the information included in items (a) and (c) may be incorporated in the main report.

The technical appendices (item c above) should include, but not necessarily be limited to:

- a. description of the configuration of collector and interceptor systems, profiles, sizes and cost breakdowns.
- b. treatment plant data, including site plan, layouts of unit processes, flow charts, design and performance data.

10. REVIEW, CERTIFICATION AND APPROVAL OF PLANS

10.1 Purpose

This chapter describes the administrative procedures and requirements for submission of a facility plan (and revisions thereof) to State receiving agencies and to EPA. It also describes the actions States and EPA take on the plan.

10.2 Three Levels of Review

The three levels of review of a facility plan are as follows:

- a. review by a clearinghouse of interested agencies at the local level as required by Circular A-95, "Federal and Federally Assisted Programs and Projects", of the Federal Office of Management and Budget (reference z).
- b. review by the State for compliance with State requirements, and Federal statutory and regulatory requirements.
- c. review by EPA for compliance with Federal requirements.

10.3 Compliance with OMB Circular A-95

EPA will not conduct a final review of an application for a grant to conduct facility planning or completed facility plans for approval unless the agency submitting the grant application or plan to the State and EPA has first complied with all applicable requirements of OMB Circular A-95 (reference z).

10.4 Submission to State

The agency desiring review and approval of a facility plan shall submit the following documents to the State Water Pollution Control Authority or its equivalent:

- a. Four (4) copies of the facility plan
- b. Two (2) copies of all relevant documents required by OMB Circular A-95
- c. One (1) original and one (1) copy of a letter from the chief official of the agency preparing the plan. The letter should request review and approval and state:
 - 1. that the agency has met all requirements for public participation relating to the plan;
 - 2. the names of all jurisdictions within the planning area which either oppose the plan or have failed to approve the plan.

10.5 Submission to EPA

EPA will review for approval only those facility plans which have received State approval and are properly submitted to the appropriate regional office by the chief official of the State Water Pollution Control Authority having jurisdiction over the planning area. The following documents should be submitted to EPA by the State:

- a. a letter signed by the chief official of the State Water Pollution Control Authority requesting review and approval, and certifying that:
 1. the plan conforms with the requirements of the construction grants regulation (Appendix B)
 2. the plan conforms with the applicable basin plan prepared or being prepared in accordance with reference i.
 3. the concerned areawide planning agency, if any, has been afforded the opportunity to comment on the plan, and the plan conforms with any completed areawide plan which has been approved in accordance with the requirements of section 208 of FWPCA.
- b. Two (2) copies of the plan
- c. One (1) copy of the letter from the local agency to the State required under paragraph 10.4 above.

10.6 Revisions to Plans

Facility plan should be reviewed regularly and brought up to date as required by changing conditions. As a minimum, a facility plan which has served as the basis for award of a Step 2 or 3 grant shall be reviewed by the State prior to application for any subsequent Step 2 or 3 grant to determine if substantial changes have occurred which warrant revision or amendment of the plan. The plan should then be revised or amended as necessary.

Revisions to the plan should be accompanied by a statement on the status of implementation of the plan as of the date of the revision. The appropriate EPA Regional Administrator, A-95 Clearinghouse, and State should be notified at least 30 days in advance of initiating a modification to a plan. Processing of revised plans will follow the procedures as outlined above.

10.7 EPA Review

The review by EPA will ascertain that the requirements of FWPCA and applicable amendments are met, including specific determination that:

- a. the plan is consistent with existing State and NPDES permits.

- b. the plan is consistent with the requirements of the applicable final plan prepared under reference i, "Preparation of Water Quality Management Basin Plans."
- c. the plan is consistent with any completed areawide plan approved in accordance with section 208 of FWPCA.
- d. all requirements for public participation have been met.
- e. the plan will provide for secondary treatment, as a minimum, as well as appropriate application of Best Practicable Waste Treatment Technology in accordance with technical criteria established by EPA, or for more stringent treatment levels required to meet water quality standards.
- f. the plan is cost-effective and environmentally sound.
- g. excessive infiltration/inflow does not exist, or that a detailed sewer evaluation survey and necessary sewer rehabilitation measures will be accomplished in accordance with the Construction Grants regulation (Appendix B).
- h. implementation of the plan is institutionally feasible within the time period proposed.
- i. the plan is compatible with facility plans and completed and approved areawide plans developed for contiguous areas of other States.
- j. the plan includes an adequate environmental assessment.
- k. the treatment works will comply with applicable requirements of the Clean Air Act and other applicable environmental laws and regulations.

10.8 EPA Approval

The EPA Regional Administrator has authority to approve any facility plan submitted to him by a State within his region.

After review of a properly submitted plan or amendment and compliance with the requirements of the National Environmental Policy Act (see reference a), the EPA Regional Administrator will notify the chief official of the appropriate State Water Pollution Control Authority of his concurrence and approval, or the EPA regional office will work closely with the State to provide advice to the municipality on how the plan may be improved so that approval will be possible.

APPENDIX A - REFERENCES

APPENDIX A - REFERENCES

A.1 FEDERAL REGULATIONS

- a. 40 CFR Part 6, "Preparation of Environmental Impact Statements," Federal Register, Vol. 40, No. 72, April 14, 1975, pp. 16811-16827
- b. 40 CFR Part 35, Subpart B, "State and Local Assistance", Federal Register, Vol. 38, No. 125, June 29, 1973, pp. 17219-27225
- c. 40 CFR Part 35, Subpart E, "Grants for Construction of Treatment Works--Federal Water Pollution Control Act Amendments of 1972", Federal Register, Vol. 39, No. 29, February 11, 1974, pp. 5252-5270
- d. 40 CFR Part 35, Subpart E, Appendix A "Cost Effectiveness Analysis Guidelines", Federal Register, Vol. 38, No. 174, September 10, 1973, pp. 24639-24640
- e. 40 CFR Part 35, Subpart E, Appendix B "User Charges and Industrial Cost Recovery", Federal Register, Vol. 38, No. 161, August 21, 1973, pp. 22524-22527
- f. 40 CFR Part 105, "Public Participation in Water Pollution Control", Federal Register, Vol. 38, No. 163, August 23, 1973, pp. 22756-22758
- g. 40 CFR Part 128, "Pretreatment Standards", Federal Register, Vol. 38, No. 215, November 8, 1973, pp. 30982-30984
- h. 40 CFR Part 130, "Policies and Procedures for State Continuing Planning Process", Federal Register, Vol. 39, No. 107, June 3, 1974, pp. 19634-19639
- i. 40 CFR Part 131, "Preparation of Water Quality Management Basin Plans", Federal Register, Vol. 39, No. 107, June 3, 1974, pp. 19639-19644
- j. 40 CFR Part 133, "Secondary Treatment Information", Federal Register, Vol. 38, No. 159, August 17, 1973, pp. 22298-22299.
- k. 40 CFR Part 220-227, "Ocean Dumping, Final Regulations and Criteria", Federal Register, Vol. 38, No. 198, October 15, 1973, pp. 28609-28621.
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A.2 EPA DOCUMENTS

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- p. "Design Criteria for Mechanical, Electric, and Fluid System and Component Reliability, Technical Bulletin, EPA-430-99-74-001
- q. "Design, Operation and Maintenance of Wastewater Treatment Facilities", Technical Bulletin, U.S. EPA, September 1970
- r. "EPA Policy to Protect the Nation's Wetlands", Administrators Decision Statement No. 4, Federal Register, Vol. 38, No. 84, p. 10834
- s. "Evaluation of Land Application Systems", Technical Bulletin, EPA-430/9-75-001, March 1975
- t. "Guidance for Sewer System Evaluation", U.S. EPA, March 1974
- u. "Guidelines for the Preparation of Water Quality Management Plans", EPA, September 1974
- v. "Manual for Preparation of Environmental Impact Statements for Wastewater Treatment Works, Facilities Plans, and 208 Areawide Waste Treatment Management Plans", U.S. EPA, July 1974
- w. "Survey of Facilities Using Land Application of Wastewater", EPA-430/9-73-006, July 1973
- x. Water Quality Strategy Paper, second edition, "A Statement of Policy for Implementing the Requirements of the 1972 Federal Water Pollution Control Act Amendments and Certain Requirements of the 1972 Marine Protection, Research and Sanctuaries Act", U.S. EPA, March 1974
- y. "Protection of Shellfish Waters," Technical Bulletin, EPA 430/9-74-010, July 1974.

NOTE: A copy of the references listed in A.1 and A.2 may be obtained from the Regional Offices listed in Appendix C.

A.3 CIRCULARS, AND MISCELLANEOUS PUBLICATIONS

- z. OMB Circular A-95, "Federal and Federally Assisted Programs and Projects, " Federal Register, Vol 38., No. 228, November 28, 1973
- aa. Grant, E.L. and Ireson, W.G., Principles of Engineering Economy, 5th Edition, New York: Ronald Press, 1970.
- bb. James, L.D., and Lee, R., Economics of Water Resources, New York: McGraw-Hill, 1971

APPENDIX B - CONSTRUCTION GRANT REGULATION

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PART III



ENVIRONMENTAL PROTECTION AGENCY

■

WATER POLLUTION CONTROL

**Construction Grants
for Waste Treatment Works**

Title 40—Protection of Environment
CHAPTER I—ENVIRONMENTAL
PROTECTION AGENCY
SUBCHAPTER B—GRANTS
PART 35—STATE AND LOCAL
ASSISTANCE

Final Construction Grant Regulations

Title II of the Federal Water Pollution Control Act Amendments of 1972 (Pub. L. 92-500, 33 U.S.C. 1251 et seq.) authorizes the award of construction grants for waste treatment works. The award of these grants creates a contractual obligation of the United States for payment of the Federal share of the construction costs of such projects.

Interim regulations were published in the *FEDERAL REGISTER* for this program on February 28, 1973 (38 FR 5329). Written comments received from interested parties are on file with the Environmental Protection Agency. The agency has carefully considered all comments submitted by the public, as well as comments made by EPA and State Agency personnel on the basis of their experience under the interim construction grant regulations. A number of these comments have been adopted or substantially satisfied by editorial changes in, deletions from, or additions to this subpart. An effort has been made to conform the procedures and requirements of the new grant system to the construction grants program established under section 8 of the prior Federal Water Pollution Control Act, as well as to ensure that new statutory requirements will be met.

Major changes in this subpart are the following:

(1) The three-step grant process has been clarified to reflect that a basic grant application is submitted for the initial award of grant assistance, and that subsequent related projects will be funded through amendment of this grant. In addition, in accordance with section 2 of Pub. L. 93-243, enacted December 28, 1973, the requirement that a Step 3 project had to result in an "operable" treatment works has been deleted. A project may be awarded for any "segment" of treatment works construction as that term is defined in new § 35.905-24, which provides that a segment may consist of any portion of the treatment works construction associated with a discrete contract or subcontract to be awarded for Step 1, 2, or 3 project work.

(2) Section 35.915 has been revised and expanded to explain more clearly EPA requirements under applicable statutory provisions for State priority systems and the interrelationship between this subpart and regulations which have been issued under section 106 and 303(e) of the Act. Each State will develop and submit a single project priority list which will remain in effect until a new list is approved as a part of the annual section 106 State program submission; once priority has been established for a project, the project will retain this priority until funded, unless the State

otherwise provides through its priority system. Two new provisions have also been added. Section 35.915(g) requires that each State reserve not less than 5 percent of fiscal year 1975 and subsequent State allotments of contract authority in order to adequately provide for cost overruns which are being experienced under the construction grant program. Section 35.915(i) permits (but does not require) the State to establish a separate reserve for grant assistance for Step 1 and Step 2 projects whose selection for funding will be determined by the State agency subsequent to approval of the project list, since experience has demonstrated that States require more flexibility than is permitted by an annual priority determination.

(3) Facilities planning requirements are set forth in new §§ 35.917 through 35.917-9. In order to permit a transition into these new requirements, full compliance with substatutory requirements will not be required except with respect to Step 1 work which is initiated after April 30, 1974. After October 31, 1974, a "plan of study" must be approved prior to the initiation of Step 1 work. These new procedures are designed to assure better accomplishment of the objectives of the new Federal Water Pollution Control Act and collateral statutory requirements (such as the National Environmental Policy Act of 1969). These statutory requirements must be addressed by the applicant during the facilities planning process.

(4) New procedures have been established in revised § 35.927-5 to assure that the infiltration/inflow requirements derived from section 201(g) (3) and (4) of the 1972 FWPCA Amendments are met without unnecessary documentation and expense.

(5) New provisions in §§ 35.925-18 and 35.905-4 delineate the Agency's position with respect to the initiation of project construction prior to the award of grant assistance for Steps 1, 2, or 3. Section 206 of the FWPCA Amendments of 1972 clearly precludes the type of reimbursement previously authorized under section 8 of the former FWPCA with respect to projects (as defined under the program authorized by the prior statute) on which construction was initiated after June 30, 1972. Due to the institution of the three-step grant process under the new FWPCA, it has become necessary to address the issue of reimbursement with respect to "initiation of construction" (as defined in 35.905-4) for Steps 1 and 2. For this reason, and to permit better program management by EPA and State agencies, and to permit better accomplishment of statutory objectives, procedures are set forth in § 35.925-18 which will phase out the possibility of a reimbursement claim. Eligible Step 1 or Step 2 project work initiated prior to November 1, 1974, will be fully reimbursed in conjunction with the next award of grant assistance, if reimbursement is requested (see § 35.945(a)). Prior approval will be required with respect to Step 1 and Step 2 work which

is initiated after October 31, 1974. Step 1 or Step 2 work initiated after June 30, 1975, must be preceded by award of grant assistance or, in the case of Step 1 work, prior approval of a plan of study accompanied by reservation of funds for the grant award.

State agencies are requested to furnish detailed comment through EPA Regional Administrators with respect to any difficulties which may be encountered in the application of § 35.925-18. This section will be revised, if necessary, to permit an orderly transition into a fully nonreimbursable program and at the same time to assure that the development of projects necessary to comply with applicable effluent and water quality related requirements will not be hindered.

(6) Section 35.930-6 has been added to clarify the extent of the Federal Government's obligation to pay 75 percent of approved project costs. The Section emphasizes the grantee's obligation to notify EPA and the State of unavoidable cost overruns and to avoid the incurrence of costs in excess of the approved grant amount, which operates as a ceiling upon Federal participation until and unless revised through funding of grant amendments from State allotments, for project changes for which timely notification has been received. The statutory provision for funding of this program solely through a system of State-by-State allotments operates to limit the possibility of funding for cost overruns incurred under these grants in a more rigid manner than cost overrun funding under Federal contracts; cost overruns under these grants must be funded from State allotments, in addition to the funding of new projects.

(7) Section 35.908 has been restated to encourage more explicitly the use of advanced technology and accelerated construction techniques. The section now provides that "... processes or methods which have been successfully demonstrated under less than full scale conditions may be utilized in the construction of treatment works ...". Under the interim regulations, only processes which had been demonstrated under "comparable" conditions could be used.

(8) New § 35.938 codifies EPA procedures pertaining to the award of construction contracts by grantees during Step 3. The basic intent of these procedures is to assure free and open competition among bidders and to assure compliance with the nonrestrictive specification requirement of section 204(a) (6) of the Act. Section 35.937 which would address procurement by grantees of professional and personal services, is being separately issued as a proposed regulation, which will not be effective until an interim or final regulation is adopted.

In addition, a considerable number of technical revisions have been made throughout the subpart. Accordingly, for the convenience of users, the entire subpart is being republished.

Construction grant regulations adopted under Section 8 of the former FWPCA

(§ 35.900 et seq. of this part) remain in effect and are applicable to construction grants awarded prior to January 1, 1973, under the authority of section 8. This Subpart E establishes policies and procedures applicable only to construction grant awards from fiscal year 1973 and later contractual obligation authority allotments under Title II of the FWPCA Amendments of 1972.

Regulations have been promulgated separately as Subpart D of this part to implement the reimbursement provisions of section 206 of the 1972 FWPCA Amendments.

This subpart is promulgated as a final regulation and will replace the interim regulations previously promulgated. However, because of the numerous changes and additions which have been made throughout this subpart, public comment is again invited. In particular, comment is invited upon the new provisions of the following sections: 35.903, 35.908, 35.915, 35.917 to 35.917-9, 35.930-6, 35.938, 35.939, and 35.960. Interested parties are encouraged to submit written comments, views, or data concerning this subpart to the Director, Grants Administration Division, Environmental Protection Agency, Washington, D.C. 20460. All such submissions received on or before April 15, 1974, will be considered with respect to the need for amendment of this subpart.

Effective date. This subpart shall become effective February 11, 1974. All EPA construction grants awarded pursuant to sections 109(b) and 201(g)(1) shall be subject to this subpart. It is necessary that this subpart take effect immediately in order to accomplish the objectives of the Act and to assure optimum achievement of the effluent and water quality objectives established pursuant to the Act.

Dated: February 4, 1974.

RUSSELL E. TRAIN,
Administrator.

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AUTHORITY: Secs. 109(b), 201 through 205, 207, 210 through 212, and 301(a), 302, and 511 of Pub. L. 92-500 (36 Stat. 810; 33 U.S.C. 1261) as amended by Pub. L. 93-243.

§ 35.900 Purpose.

This subpart supplements the EPA general grant regulations and procedures (Part 30 of this chapter) and establishes policies and procedures for grants to assist the construction of publicly owned waste treatment works in compliance with the Federal Water Pollution Control Act.

§ 35.903 Summary of construction grant program.

(a) The construction of Federally financed waste treatment works is generally accomplished in three steps: Step 1 facilities plans and related elements; Step 2 preparation of construction drawings and specifications; and Step 3 fabrication and building of a treatment works.

(b) The Regional Administrator may award grant assistance for a Step 1, Step 2, or Step 3 project, or, under special conditions, for a project involving a combination of Steps 2 and 3. A "project" (see § 35.905-16) may consist of an entire step or any "segment" (see § 35.905-24) of construction within a step.

(c) Grants are awarded from State allocations (see § 35.910) pursuant to statute. No grant assistance may be awarded unless priority for a project has been determined in accordance with an approved State priority system pursuant to § 35.915. The State is responsible for determining the amount and timing of Federal assistance to each municipality for which treatment works funding is needed.

(d) The scope of a project will be initially defined by a prospective applicant. This initial project scope may be revised by the State when priority for the project is established. The final determination of project scope will be made by the Regional Administrator when grant assistance is awarded (see § 35.930-4).

(e) An application must first be submitted to the State agency for each proposed grant. The basic grant application must meet the requirements for the project set forth in § 35.920-3. Submissions required for grant assistance for subsequent related projects shall be provided in the form of amendments to the basic application. The State agency will forward to the appropriate EPA Regional Administrator complete project applications or amendments thereto for which priority has been determined by the State agency. The grant will consist of the grant agreement resulting from the basic application and grant amendments awarded for subsequent related projects.

(f) Generally, grant assistance for projects involving Steps 2 or 3 will not be awarded unless the Regional Administrator first determines that the facilities planning requirements of §§ 35.917 to 35.917-9 of this subpart have been met. After October 31, 1974, written approval of a "plan of study" (see § 35.920-3(a)(1)) must be obtained prior to initiation of facilities planning. After June 30, 1975, facilities planning may not be initiated prior to approval of a Step 1 grant (see §§ 35.925-18 and 35.905-4).

(g) If initiation of Step 1, 2, or 3 construction (see § 35.905-4) has occurred prior to award of grant assistance, costs incurred prior to the approved date of initiation of construction will not be paid and award will not be made except under the circumstances set forth in § 35.925-18.

(h) The Regional Administrator may not award grant assistance unless the project application requirements of § 35.920-3 have been met and he has made the determinations required by § 35.925 et seq.

(i) A grant or grant amendment awarded for a project under this subpart shall constitute a contractual obligation of the United States to pay the Federal share of allowable project costs up to the amount approved in the grant agreement (including amendments) in accordance with § 35.930-6 of this subpart, subject to the grantee's compliance with the conditions of the grant (see § 35.935 et seq.) and other applicable requirements of this subpart.

(j) Section 35.945 authorizes prompt payment for incurred project costs in accordance with a negotiated payment schedule. The initial request for payment may cover unpaid allowable costs of work completed prior to award except as otherwise provided in § 35.925-18. All allowable costs incurred prior to initiation of project construction must be claimed in the application for grant assistance for that project prior to the award of such assistance or no subsequent claim for payment may be made for such costs.

The estimated amount of any grant or grant amendment, including any prior costs, must be established in conjunction with determination of priority for the project. The Regional Administrator must determine that the project costs are reasonable and allowable, in accordance with § 35.940.

(k) Pursuant to section 204(b) of the Act, the grantee must comply with applicable user charge and industrial cost recovery requirements; see §§ 35.925-11, 35.925-12, 35.928, 35.935-13, and Appendix B of this subpart.

(l) Sewage collection systems for new communities, new subdivisions, or newly developed urban areas must be addressed in the planning of such areas and should be included as part of the development costs of the new construction in these areas. Such costs will not be allowed under the construction grant program, pursuant to section 211 of the Act; see § 35.925-13.

(m) The approval of a plan of study for Step 1, a facilities plan, or award of grant assistance for Step 1, Step 2, or Step 3, or any segment thereof, will not constitute a Federal commitment for approval of grant assistance for any subsequent project.

(n) Where justified, a deviation from any substatutory requirements of this subpart may be granted pursuant to § 30.1001 of this chapter.

(o) It is the policy of the Environmental Protection Agency to promote adequate public participation in the construction grant process. Opportunity for public participation is required: (1) In the development of the State water pollution control strategy and State project priority list, pursuant to §§ 35.556 and 35.915; and (2) in the development of facilities plans, pursuant to § 35.917-5.

§ 35.905 Definitions.

As used in this subpart, the following words and terms shall have the meaning set forth below:

§ 35.905-1 The Act.

The Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as amended by the Federal Water Pollution Control Act Amendments of 1972 (Pub. L. 92-500) and Pub. L. 93-243.

§ 35.905-2 Combined sewer.

A sewer intended to serve as a sanitary sewer and a storm sewer, or as an industrial sewer and a storm sewer.

§ 35.905-3 Complete waste treatment system.

A complete waste treatment system consists of all the connected treatment works necessary to meet the requirements of Title III of the Act and involved in: (a) The transport of wastewaters from individual homes or buildings to a plant or facility wherein treatment of the wastewater is accomplished; (b) the treatment of the wastewaters to remove pollutants; and (c) the ultimate disposal, including recycling or reuse, of the treated wastewaters and residues resulting from the treatment process. One complete waste treatment system would,

normally, include one treatment plant or facility, but in instances where two or more treatment plants are interconnected, all of the interconnected treatment works will be considered as one waste treatment system.

§ 35.905-4 Construction.

Any one or more of the following: Preliminary planning to determine the feasibility of treatment works, engineering, architectural, legal, fiscal, or economic investigations or studies, surveys, designs, plans, working drawings, specifications, procedures or other necessary actions, erection, building, acquisition, alteration, remodeling, improvement, or extension of treatment works, or the inspection or supervision of any of the foregoing items. The phrase "initiation of construction," as used in this subpart means with reference to a project for:

(a) The preparation of a facilities plan or completion of other Step 1 elements:

(1) Prior to November 1, 1974, the execution of an agreement for any element of Step 1 project work (including facilities planning); or, if an agreement covering Step 1 work has previously been entered into, the issuance of a notice to proceed with the Step 1 work; or a work order for the execution of any element of Step 1 work;

(2) After October 31, 1974, the date of approval of a plan of study (see § 35.925-18(a)(1));

(b) the preparation of construction drawings and specifications (Step 2):

(1) Prior to November 1, 1974, the execution of an agreement for the preparation of construction drawings and specifications; or, if an agreement covering both Step 1 and Step 2 elements has been previously entered into, the issuance of a notice to proceed; or a work order for the preparation of construction drawings and specifications;

(2) After October 31, 1974, the date of approval of a facilities plan (see § 35.925-18(a)(2));

(c) the building and erection of a treatment works segment (Step 3): the issuance of a notice to proceed under a construction contract for any segment of Step 3 project work, or, if notice to proceed is not required, execution of the construction contract.

§ 35.905-5 Excessive infiltration/inflow.

The quantities of infiltration/inflow which can be economically eliminated from a sewer system by rehabilitation, as determined by a cost-effectiveness analysis that compares the costs for correcting the infiltration/inflow conditions with the total costs for transportation and treatment of the infiltration/inflow, subject to the provisions in § 35.927.

§ 35.905-6 Industrial cost recovery.

Recovery by the grantee from the industrial users of a treatment works of the grant amount allocable to the treatment of wastes from such users pursuant to section 204(b) of the Act and this subpart.

§ 35.905-7 Industrial Cost Recovery Period.

That period during which the grant amount allocable to the treatment of wastes from industrial users is recovered from the industrial users of such works.

§ 35.905-8 Industrial user.

Any nongovernmental user of publicly owned treatment works identified in the Standard Industrial Classification Manual, 1972, Office of Management and Budget, as amended and supplemented, under the following divisions:

(a) *Division A. Agriculture, Forestry, and Fishing.*

(b) *Division B. Mining.*

(c) *Division D. Manufacturing.*

(d) *Division E. Transportation, Communications, Electric, Gas, and Sanitary Services.*

(e) *Division I. Services.* A user in the Divisions listed may be excluded if it is determined that it will introduce primarily segregated domestic wastes or wastes from sanitary conveniences.

§ 35.905-9 Infiltration.

The water entering a sewer system, including sewer service connections, from the ground, through such means as, but not limited to, defective pipes, pipe joints, connections, or manhole walls. Infiltration does not include, and is distinguished from, inflow.

§ 35.905-10 Infiltration/inflow.

The total quantity of water from both infiltration and inflow without distinguishing the source.

§ 35.905-11 Inflow.

The water discharged into a sewer system, including service connections from such sources as, but not limited to, roof leaders, cellar, yard, and area drains, foundation drains, cooling water discharges, drains from springs and swampy areas, manhole covers, cross connections from storm sewers and combined sewers, catch basins, storm waters, surface run-off, street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration.

§ 35.905-12 Interceptor sewer.

A sewer whose primary purpose is to transport wastewaters from collector sewers to a treatment facility.

§ 35.905-13 Interstate agency.

An agency of two or more States established by or pursuant to an agreement or compact approved by the Congress, or any other agency of two or more States, having substantial powers or duties pertaining to the control of water pollution.

§ 35.905-14 Municipality.

A city, town, borough, county, parish, district, association, or other public body (including an intermunicipal agency of two or more of the foregoing entities)

created by or pursuant to State law, or an Indian tribe or an authorized Indian tribal organization, having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or a designated and approved management agency under section 208 of the Act. This definition excludes a special district, such as a school district, which does not have as one of its principal responsibilities the treatment, transport, or disposal of liquid wastes.

§ 35.905-15 Operable treatment works.

An operable treatment works is a treatment works that:

(a) Upon completion of construction will treat wastewater, transport wastewater to or from treatment, or transport and dispose of wastewater in a manner which will significantly improve an objectionable water quality related situation or health hazard in existence prior to construction of the treatment works, and

(b) Is a component part of a complete waste treatment system which, upon completion of construction for the complete waste treatment system (or completion of construction of other treatment works in the system in accordance with a schedule approved by the Regional Administrator) will comply with all applicable statutory and regulatory requirements.

§ 35.905-16 Project.

The scope of work for which Federal assistance is awarded by a grant or grant amendment pursuant to this subpart. For the purposes of this subpart, the scope of work is defined as Step 1, Step 2, or Step 3 of treatment works construction or segments thereof (see § 35.905-24 and § 35.930-4).

§ 35.905-17 Replacement.

Expenditures for obtaining and installing equipment, accessories, or appurtenances which are necessary during the service life of the treatment works to maintain the capacity and performance for which such works were designed and constructed. The term "operation and maintenance" includes replacement.

§ 35.905-18 Sanitary sewer.

A sewer intended to carry only sanitary or sanitary and industrial waste waters from residences, commercial buildings, industrial plants, and institutions.

§ 35.905-19 Sewage collection system.

For the purpose of § 35.925-13 of this subpart, each, and all, of the common lateral sewers, within a publicly-owned treatment system, which are primarily installed to receive wastewaters directly from facilities which convey wastewater from individual structures or from private property, and which include service connection "Y" fittings designed for con-

nection with those facilities. The facilities which convey wastewater from individual structures or from private property to the public lateral sewer, or its equivalent, are specifically excluded from the definition, with the exception of pumping units, and pressurized lines, for individual structures or groups of structures when such units are cost effective and are owned and maintained by the grantee.

§ 35.905-20 State.

A State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands.

§ 35.905-21 State agency.

The State water pollution control agency designated by the Governor having responsibility for enforcing State laws relating to the abatement of pollution.

§ 35.905-22 Storm sewer.

A sewer intended to carry only storm waters, surface run-off, street wash waters, and drainage.

§ 35.905-23 Treatment works.

Any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature to implement section 201 of the act, or necessary to recycle or reuse water at the most economical cost over the useful life of the works, including intercepting sewers, outfall sewers, sewage collection systems, pumping, power, and other equipment and their appurtenances; extensions, improvement, remodeling, additions, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities; and any works, including site acquisition of the land that will be an integral part of the treatment process or is used for ultimate disposal or residues resulting from such treatment; or any other method or system for preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste, including storm water run-off, or industrial waste, including waste in combined storm water and sanitary sewer systems.

§ 35.905-24 Treatment Works Segment.

A treatment works segment may be any portion of an operable treatment works described in an approved facilities plan, pursuant to § 35.917, and which can be identified as a discrete contract or subcontract for Step 1, 2, or 3 work. Completion of construction of a treatment works segment may, but need not, result in an operable treatment works.

§ 35.905-25 Useful life.

Estimated period during which a treatment works will be operated.

§ 35.905-26 User charge.

A charge levied on users of a treatment works for the cost of operation and maintenance of such works, pursuant to Section 204(b) of the Act and this subpart.

§ 35.908 Advanced technology and accelerated construction techniques.

It is the policy of the Environmental Protection Agency to encourage and, where possible, to assist in the development of accelerated construction processes, methods, and technology for the construction of waste treatment works. New or advanced processes or methods may be utilized in the construction of treatment works under this subpart. New technology or processes may be developed or demonstrated with the assistance of EPA research or demonstration grants awarded under Title I of the Act. New processes or methods which have been successfully demonstrated under less than full scale conditions may be utilized in the construction of treatment works under this subpart.

§ 35.910 Allocation of funds.**§ 35.910-1 Allotment.**

Allotments shall be made among the States from funds authorized to be appropriated pursuant to section 207 in the ratio that the most recent congressionally approved estimate of the cost of constructing all needed publicly owned treatment works in each State bears to the most recent congressionally approved estimate of the cost of construction of all needed publicly owned treatment works in all of the States. Computation of a State's ratio shall be carried out to the nearest ten thousandth percent (0.0001 percent) and allotted amounts will be rounded to the nearest thousand dollars except for Fiscal Year 1975 which will be rounded to the nearest fifty dollars.

§ 35.910-2 Reallotment.

(a) Sums allotted to a State under § 35.910-1 shall be available for obligation on and after the date of such allotment and shall continue to be available to such State for a period of one year after the close of the fiscal year for which such sums are authorized. Funds remaining unobligated at the end of the allotment period will be immediately reallotted by the Administrator, on the basis of the most recent allotment ratio to those States which have used their full allotment.

(b) Reallotted sums shall be added to the last allotments made to the States and shall be in addition to any other

funds otherwise allotted, and be available for obligation in the same manner and to the same extent as such last allotment.

(c) Any sums which have been obligated under this subpart which remain after final payment, or after termination of a project, shall be credited to the State to which such sums were last allotted. Such released sums shall be added to the amounts last allotted to such State and shall be available for obligation in the same manner and to the same extent as such last allotment.

§ 35.910-3 Fiscal Years 1973 and 1974 Allotments.

(a) For Fiscal Years ending June 30, 1973 and June 30, 1974, sums of \$2 billion and \$3 billion, respectively, have been allotted on the basis of Table III of House Public Works Committee Print No. 92-50.

(b) The percentages used in computing the State allotments set forth in paragraph (c) of this section for Fiscal Years 1973 and 1974 are as follows:

State	Percentage	State	Percentage
Alabama	0.3612	North Carolina	0.9229
Alaska	0.2282	North Dakota	0.0467
Arizona	0.1846	Ohio	5.7737
Arkansas	0.3596	Oklahoma	4.606
California	9.8176	Oregon	0.8494
Colorado	0.166	Pennsylvania	5.4214
Connecticut	1.6810	Rhode Island	4.880
District of Columbia	0.7114	South Carolina	0.6455
Delaware	0.6665	South Dakota	0.0048
Florida	3.6264	Tennessee	1.1605
Georgia	0.9730	Texas	2.7694
Hawaii	0.3303	Utah	1.403
Idaho	0.2177	Vermont	0.2218
Illinois	6.2480	Virginia	2.9143
Indiana	3.3662	Washington	0.8906
Iowa	1.1557	West Virginia	0.4999
Kansas	0.3742	Wisconsin	1.7415
Kentucky	0.6599	Wyoming	0.0263
Louisiana	0.9428	Guam	0.0872
Maine	0.0075	Puerto Rico	0.8945
Maryland	4.2582	Virgin Islands	0.0893
Massachusetts	3.7576	American Samoa	0.0048
Michigan	7.9814	Trust Territory of Pacific Islands	0.0378
Minnesota	2.0310		100.0000
Mississippi	0.3935		
Missouri	1.6556		
Montana	0.1662		
Nebraska	0.3708		
Nevada	0.2877		
New Hampshire	0.8909		
New Jersey	7.7040		
New Mexico	0.2106		
New York	11.0578		

(c) Based upon the percentages, the sums allotted to the States as of July 1, 1973, for Fiscal Years 1973 and 1974 are as follows:

State	Fiscal year 1973	Fiscal year 1974
Alabama	\$7,224,000	\$10,536,000
Alaska	4,504,000	6,756,000
Arizona	2,692,000	4,038,000
Arkansas	7,072,000	10,608,000
California	106,352,000	204,528,000
Colorado	6,332,000	9,498,000
Connecticut	33,620,000	50,430,000
Delaware	13,130,000	19,605,000
District of Columbia	14,228,000	21,342,000
Florida	72,528,000	108,792,000
Georgia	19,460,000	29,190,000
Hawaii	6,608,000	9,909,000
Idaho	4,354,000	6,531,000
Illinois	124,978,000	187,467,000
Indiana	67,824,000	100,986,000
Iowa	28,114,000	42,171,000
Kansas	7,484,000	11,226,000
Kentucky	13,198,000	19,797,000
Louisiana	18,868,000	28,284,000
Maine	19,350,000	29,025,000
Maryland	85,164,000	127,746,000
Massachusetts	75,152,000	112,728,000
Michigan	159,628,000	239,442,000
Minnesota	40,638,000	60,957,000
Mississippi	7,870,000	11,905,000
Missouri	38,112,000	56,668,000
Montana	8,824,000	13,236,000
Nebraska	7,410,000	11,124,000
Nevada	5,754,000	8,631,000
New Hampshire	16,818,000	24,927,000
New Jersey	164,080,000	246,120,000
New Mexico	4,216,000	6,324,000
New York	221,156,000	331,734,000
North Carolina	15,458,000	23,187,000
North Dakota	984,000	1,401,000
Ohio	115,471,000	173,211,000
Oklahoma	9,216,000	13,824,000
Oregon	16,968,000	25,432,000
Pennsylvania	108,428,000	162,642,000
Rhode Island	9,778,000	14,667,000
South Carolina	12,010,000	18,015,000
South Dakota	1,826,000	2,739,000
Tennessee	23,210,000	34,815,000
Texas	55,888,000	83,824,000
Utah	2,816,000	4,224,000
Vermont	4,436,000	6,654,000
Virginia	58,288,000	87,429,000
Washington	17,812,000	26,718,000
West Virginia	9,998,000	14,997,000
Wisconsin	31,830,000	47,745,000
Wyoming	536,000	804,000
Guam	1,744,000	2,616,000
Puerto Rico	17,690,000	26,535,000
Virgin Islands	1,780,000	2,670,000
American Samoa	96,000	144,000
Trust Territory of Pacific Islands	756,000	1,134,000
Total	2,000,000,000	3,000,000,000

§ 35.910-4 Fiscal Year 1975 Allotments.

(a) For the Fiscal Year ending June 30, 1975, a sum of \$4 billion has been allotted based 50 percent on the ratios of Table I and 50 percent of Table II of House Public Works Committee Print No. 93-28, pursuant to Pub. L. 93-243.

(b) The percentages used in computing the State allotments set forth in paragraph (c) of this section, for Fiscal Year 1975 are as follows:

State	Percentage	State	Percentage
Alabama	0.3016	Delaware	0.5348
Alaska	0.3680	District of Columbia	
Arizona	0.4096	Florida	0.9724
Arkansas	0.6069	Georgia	1.9369
California	11.0340	Hawaii	1.0406
Colorado	0.7897	Idaho	0.2009
Connecticut	1.7687		

State	Per-centage	State	Per-centage
Illinois	6.4178	Pennsyl- vania	5.6658
Indiana	1.6196	Rhode Island	0.5806
Iowa	1.0012	South Carolina	1.4228
Kansas	1.0322	South Dakota	0.0907
Kentucky	1.6579	Tennessee	1.2903
Louisiana	0.7246	Texas	1.6534
Maine	0.6870	Utah	0.4217
Maryland	1.3767	Vermont	0.3001
Massachu- setts	2.2946	Virginia	2.5096
Michigan	4.7978	Washing- ton	1.5468
Minnesota	1.6341	West Virginia	0.9598
Mississippi	0.5355	Wisconsin	1.3317
Missouri	1.8960	Wyoming	0.0768
Montana	0.1421	Guam	0.0478
Nebraska	0.5314	Puerto Rico	1.0386
Nevada	0.4755	Virgin Islands	0.0796
New Hamp- shire	0.8920	American Samoa	0.0147
New Jersey	6.4789	Trust Terri- tory of the Pacific Islands	0.0133
New Mexico	0.1869		
New York	12.4793		
North Caro- lina	1.7029		
North Dakota	0.0818		
Ohio	4.9184		
Oklahoma	1.1953		
Oregon	0.8682		

(c) Based upon the percentages set forth in paragraph (b) of this section and allotment adjustments the sums allotted to the States as of January 1, 1974, are as follows:

Alabama	\$33,785,150
Alaska	15,059,100
Arizona	17,695,750
Arkansas	23,890,100
California	457,420,100
Colorado	30,930,900
Connecticut	69,542,900
Delaware	21,815,900
District of Columbia	38,233,800
Florida	164,496,400
Georgia	76,153,000
Hawaii	41,140,000
Idaho	7,898,400
Illinois	252,311,700
Indiana	63,978,100
Iowa	39,364,800
Kansas	40,192,500
Kentucky	65,183,600
Louisiana	35,551,850
Maine	26,227,000
Maryland	54,128,100
Massachusetts	90,215,900
Michigan	188,637,400
Minnesota	64,247,300
Mississippi	22,346,700
Missouri	74,546,400
Montana	7,534,600
Nebraska	20,894,000
Nevada	18,699,600
New Hampshire	35,072,950
New Jersey	234,656,200
New Mexico	10,670,500
New York	490,654,200
North Carolina	70,494,200
North Dakota	6,876,100
Ohio	193,378,700
Oklahoma	48,997,400
Oregon	34,136,700
Pennsylvania	222,744,100
Rhode Island	20,864,000
South Carolina	55,982,000
South Dakota	7,308,800
Tennessee	48,371,800
Texas	106,900,250
Utah	16,579,600
Vermont	11,800,800
Virginia	98,672,400
Washington	64,730,500

West Virginia	\$37,735,700
Wisconsin	52,360,400
Wyoming	4,049,450
Guam	2,172,000
Puerto Rico	40,892,900
Virgin Islands	3,180,900
American Samoa	576,700
Trust Territory of Pacific Islands	524,300

Allotment adjustment has been made for those States that would receive an allotment that would be less than their Fiscal Year 1972 allotment. The allotment of those States which fall below their Fiscal Year 1972 allotment will be restored to their Fiscal Year 1972 allotment using funds from the total allotment. Remaining funds will be allocated to States (excluding the States with allotment adjustment) based on adjusted percentages. Minimum allotment amounts are determined on the basis of Table III of House Public Works Committee Print 93-28.

§ 35.912 Delegation to State agencies.

It is the policy of the Environmental Protection Agency to utilize staff capabilities of State agencies to the maximum extent practicable through optimum utilization of available State and Federal resources and to eliminate unnecessary duplicative reviews of documents that are required as a part of the construction grant process. Accordingly, the Regional Administrator may enter into a written agreement, where appropriate, with a State agency within his Region for certification by the State agency of the technical and/or administrative adequacy of specified documents. *Provided*, That an applicant or grantee may request review by the Regional Administrator of an adverse recommendation by a State agency.

§ 35.915 State determination of project priority list.

Construction grants will be awarded from allotments available pursuant to § 35.910 in accordance with the approved State project priority list which is derived from the approved State priority system.

(a) *State priority system.* The State priority system must be designed to achieve optimum water quality improvement consistent with the goals and requirements of the Act. It shall be submitted and revised in accordance with Subpart B of this part.

(b) *State municipal discharge inventory.* Pursuant to § 136.43 of this Chapter, the State agency shall prepare a municipal discharge inventory which sets forth for the entire State a ranking of all significant municipal discharges (including, for example, eligible municipal septic systems). Such list must be submitted as part of the annual State program for the approval of the Regional Administrator under § 35.557. This State municipal discharge inventory shall be updated annually and submitted with the State program pursuant to § 35.555 of this part.

(c) *Project priority list.* The State agency shall prepare a listing of the proj-

ects for which Federal assistance may be requested. This listing should include a sufficient number of projects to permit funding to proceed in an orderly fashion through the period between the next allotment of construction grant funds to the next approval of a revised project priority list. The Regional Administrator shall consider for approval that portion of the project priority list from which grant awards may be made from currently available allotments, pursuant to the approval procedures of § 35.555.

(1) In determining which projects to fund the State shall consider the severity of pollution problems, the population affected, the need for preservation of high quality waters, and national priorities as well as total funds available, project and treatment works sequence and additional factors identified by the State in its priority system. The list of projects to be funded should be developed in conjunction with the municipal discharge inventory. It should be consistent with the municipal discharge inventory but need not rigidly follow the ranking of discharges in the inventory. The net result should be a concentration of projects to be funded in high priority areas. The Regional Administrator may require the State agency to explain the basis for priority determination for specific projects located in low priority areas (e.g., court orders, critical dischargers on lower priority segments, etc.).

(2) The project priority list shall set forth, as a minimum, the following information for each project:

- (i) Name of municipality;
- (ii) State assigned EPA project number;
- (iii) Brief description of type of project and anticipated scope of project (Step 1, 2, or 3 or combination thereof);
- (iv) Estimated total project cost; and
- (v) Estimated Federal assistance.

(3) A project which is included within the approved portion of the list shall retain its priority until a grant is awarded, unless the State otherwise provides through its priority system. Accordingly, in developing a revised list, the State must generally include thereon all projects from the approved portion of the prior list or amendments thereto for which grant assistance has not been awarded at the time the revision is prepared. The priority for all other projects will be determined in accordance with the approved State priority system.

(4) A project will be removed from the project priority list if (i) the project has been fully funded, (ii) a final and conclusive determination of project ineligibility has been made by the Regional Administrator, or (iii) the project has been removed by the State through amendment or revision of the list.

(5) In order to provide a list of projects which can be funded from available allotments in the period after January 1, 1974, until the approval of the next list, a State may add projects to the approved fiscal year 1974 list. Projects for which fiscal year 1975 contract authority will

be utilized must be identified since projects initially funded with fiscal year 1975 funds will be subject to best practicable waste treatment technology requirements (see § 35.930-4).

(d) *Submission, amendment and approval of project priority list.* The project list shall be submitted and approved annually as part of the State Program and may be amended pursuant to § 35.555 and § 35.557.

(e) *Application of additional funds.* If the State has submitted a project priority list containing more projects than could be funded under the original allotment, upon allocation of additional funds, the Regional Administrator's approval of the project priority list will be extended to the required number of projects. If there is an insufficient number of projects on the list, projects may be added to the list, pursuant to §§ 35.555 and 35.557 to account for additional funds which are available.

(f) *Public participation.* The Regional Administrator may not approve a project priority list or any significant amendment thereto unless he determines that a public hearing pursuant to § 35.556 of this Part has been held on such list prior to approval. This public hearing may be conducted in conjunction with a regular public meeting of the State agency, provided that adequate and timely State-wide notice of the meeting, including publication of the proposed project priority list is given, and attendees at the meeting are afforded adequate opportunity to express their views concerning the list. A public hearing is not required with respect to any amendment of the list (including deletion of a project) which the State agency and the Regional Administrator agree is not significant.

(g) *Reserve for grant increases.* In developing the project priority list the State must make provision for grant increases for projects awarded grant assistance under this subpart. A reasonable portion, not less than five percent, of each allotment for fiscal year 1975 and later years made pursuant to § 35.910 shall be reserved for grant amendments to increase grant amounts pursuant to §§ 35.925-11 and 35.928. A statement specifying the amount to be reserved for grant amendments shall be submitted by the State with the project priority list. The reserve period must be for not more than eighteen months after the date of such allotment. If any of the reserved amount remains, this amount may be utilized for the funding of additional projects, in accordance with the procedures set forth in paragraph (e) of this section.

(h) *Grant increases.* The Regional Administrator may approve a grant increase, upon application by the grantee, and upon written confirmation by the State for each application, that the grant increase is justified. The grant increases will be made from the amount reserved, by the State, for that purpose, from currently available allotments pursuant to paragraph (g) of this section.

(i) *Reserve for Step 1 and Step 2 Projects.* In developing the project priority list, the State may (but need not) make provision for an additional reserve for grant assistance for Step 1 and Step 2 projects whose selection for funding will be determined by the State agency subsequent to approval of the project list. A reasonable portion, but not more than ten percent, of each allotment for fiscal year 1975 and later years made pursuant to § 35.910 may be reserved for this purpose. A statement specifying the amount to be reserved for such grant assistance shall be submitted by the State with the project priority list. The reserve period may be for not more than eighteen months after the date of such allotment. If any of the reserved amount remains, this amount may be utilized for the funding of additional projects, in accordance with the procedures set forth in paragraph (e) of this section. The funding of Step 1 and Step 2 projects from this reserve should be consistent with the approved State strategy and should be developed in conjunction with, but need not rigidly follow, the ranking in the municipal discharge inventory.

§ 35.917 Facilities Planning (Step 1).

(a) These regulations set forth the facilities planning required as an element of the construction of publicly owned wastewater treatment works and supplement other provisions of this subpart.

(b) Facilities planning consists of those necessary plans and studies which are directly related to the construction of treatment works, in compliance with section 301 and 302 of the Act. Facilities planning will demonstrate the need for the proposed facilities and, by a systematic evaluation of feasible alternatives, will also demonstrate that the proposed measures represent the most cost-effective means of meeting established effluent and water quality goals, recognizing environmental and social considerations.

(c) Facilities planning, determined by the Regional Administrator to have been initiated prior to May 1, 1974, must be in accordance with applicable statutory requirements (see §§ 35.925-7 and 35.925-8), and such other requirements of this subpart as may be determined to be appropriate by the Regional Administrator.

(d) Full compliance with the facilities planning provisions of this subpart will be required prior to award of grant assistance for Step 2 or Step 3 where the Regional Administrator determines such planning was initiated (as determined pursuant to §§ 35.905-4 and 35.925-18) after April 30, 1974.

Grant assistance for Step 2 or 3 may be awarded prior to approval of a facilities plan for the entire geographic area to be served by the complete waste treatment system of which the proposed treatment works will be an integral part if the Regional Administrator determines that applicable statutory requirements have been met (see §§ 35.925-7 and 35.925-8); that the facilities planning relevant to

the proposed Step 2 or 3 project has been substantially completed; and that the Step 2 or 3 project for which grant assistance is made will not be significantly affected by the completion of the facilities plan and will be a component part of the complete system: *Provided*, That the applicant agrees to complete the facilities plan on a schedule the State accepts (subject to approval by the Regional Administrator), which schedule shall be inserted as a special condition in the grant agreement.

(e) After October 31, 1974, written approval of a plan of study (see § 35.920-3 (a) (1)) must be obtained prior to initiation of facilities planning. After June 30, 1975, facilities planning may not be initiated prior to approval of a Step 1 grant or approval of a plan of study accompanied by reservation of funds for a Step 1 grant (see §§ 35.925-18 and 35.905-4).

(f) Facilities planning guidelines published by the Administrator are for advisory information only.

(g) If the information required to be furnished as part of a facilities plan has been developed separately, it should be furnished and incorporated by reference in the facilities plan. Planning previously or collaterally accomplished under local, State or Federal programs will be utilized (not duplicated).

§ 35.917-1 Content of Facilities Plan.

Facilities planning which is initiated after April 30, 1974, must encompass the following to the extent deemed appropriate by the Regional Administrator:

(a) A description of the treatment works for which construction drawings and specifications are to be prepared. This description shall include preliminary engineering data, cost estimates for design and construction of the treatment works, and a schedule for completion of design and construction. The preliminary engineering data may include, to the extent appropriate, such information as a schematic flow diagram, unit processes, design data regarding detention times, flow rates, sizing of units, etc.

(b) A description of the selected complete waste treatment system(s) of which the proposed treatment works is a part. The description shall cover all elements of the system, from the service area and collection sewers, through treatment, to the ultimate discharge of treated wastewaters and disposal of sludge.

(c) Infiltration/inflow documentation in accordance with § 35.927.

(d) A cost-effectiveness analysis of alternatives for the treatment works and for the waste treatment system(s) of which the treatment works is a part. The selection of the system(s) and the choice of the treatment works on which construction drawings and specifications are to be based shall reflect the cost-effectiveness analysis. This analysis shall include:

- (1) The relationship of the size and capacity of alternative works to the needs to be served, including reserve capacity;
- (2) An evaluation of alternative flow and waste reduction measures;

(3) An evaluation of improved effluent quality attainable by upgrading the operation and maintenance and efficiency of existing facilities as an alternative or supplement to construction of new facilities;

(4) An evaluation of the capability of each alternative to meet applicable effluent limitations. The treatment works design must be based upon not less than secondary treatment as defined by the Administrator pursuant to sections 301 (a) (1) (B) and 304(d) (1) of the Act;

(5) An identification of, and provision for, applying the best practicable waste treatment technology (BPWTT) as defined by the Administrator, based upon an evaluation of technologies included under each of the following waste treatment management techniques:

(i) Biological or physical-chemical treatment and discharge to receiving waters;

(ii) Treatment and reuse; and

(iii) Land application techniques.

All Step 2, Step 3 or combination Step 2-3 projects for publicly-owned treatment works construction from funds authorized for any fiscal year beginning after June 30, 1974, shall be based upon application of BPWTT, as a minimum. Where application of BPWTT would not meet water quality standards, the facilities plan shall provide for attaining such standards. Such provision shall consider the alternative of treating combined sewer overflows.

(6) An evaluation of the alternative means by which ultimate disposal can be effected for treated wastewater and for sludge materials resulting from the treatment process, and a determination of the means chosen.

(7) An adequate assessment of the expected environmental impact of alternatives including sites pursuant to Part 6 of this Chapter. This assessment shall be revised as necessary to include information developed during subsequent project steps.

(e) An identification of effluent discharge limitations, or where a permit has been issued, a copy of the permit for the proposed treatment works as required by the National Pollution Discharge Elimination System.

(f) Required comments or approvals of relevant State, interstate, regional, and local agencies.

(g) A brief summary of any public meeting or hearing held during the planning process including a summary of the views expressed.

(h) A brief statement demonstrating that the authorities which will be implementing the plan have the necessary legal, financial, institutional, and managerial resources available to insure the construction, operation, and maintenance of the proposed treatment works.

(i) A statement specifying that the requirements of Title VI of the Civil Rights Act of 1964 and of Part 7 of this Chapter have been satisfied.

§ 35.917-2 State Responsibilities.

(a) *Facilities planning areas.* Facilities planning should focus upon the geographic area to be served by the waste treatment system(s) of which the proposed treatment works will be an integral part. The facilities plan should include that area deemed necessary to prepare an environmental assessment and to assure that the most cost-effective means of achieving the established water quality goals can be planned for and implemented. To assure that facilities planning initiated after April 30, 1974, subsequent to award of a Step 1 grant therefor, and all facilities planning initiated after October 31, 1974, will include the appropriate geographic areas, the State shall:

(1) Delineate, as a preliminary basis for planning, the boundaries of the planning areas. In the determination of each area, appropriate attention should be given to including the entire area where cost savings, other management advantages, or environmental gains may result from interconnection of individual waste treatment systems or collective management of such systems.

(2) Include maps, which shall be updated annually, showing the identified areas and boundary determinations as part of the State submission under section 106 of the Act.

(3) Consult with local officials in making the area and boundary determinations.

(b) *Facilities planning priorities.* The State shall establish funding priorities for facilities planning in accordance with §§ 35.915 and 35.554-3(a) (1).

§ 35.917-3 Federal assistance.

(a) *General.* Facilities planning initiated after April 30, 1974, subsequent to award of a Step 1 grant therefor, and all facilities planning initiated after October 31, 1974, must be developed pursuant to a plan of study (see § 35.920-3(a) (1)) approved in accordance with the requirements of this subpart prior to initiation of the facilities planning. A preapplication conference may be held in accordance with § 35.920-2.

(1) An applicant may apply for a grant for a Step 1 project for the preparation of a facilities plan, or any component part, and for other Step 1 elements required to submit a complete application for a Step 2 project (see § 35.920-3(b)). Alternatively, to the extent permitted by § 35.925-18, a grantee may be reimbursed for facilities planning costs and other Step 1 elements for which reasonable costs have been incurred in accordance with this subpart, in conjunction with the award of a grant for the subsequent Step 2, Step 2-3, or Step 3 projects.

(2) State priority determination in accordance with the approved State priority system pursuant to § 35.915 is required for Step 1 projects, just as in the case of Step 2 or Step 3 projects.

(b) *Eligibility.* Only an applicant which is eligible to receive grant assist-

ance for subsequent phases of construction (Steps 2 and 3) and which has the legal authority to subsequently construct and manage the facility may apply for grant assistance for Step 1. If the area to be covered by the facilities plan includes more than one political jurisdiction, a grant may be awarded for a Step 1 project, as appropriate, (1) to the joint authority representing such jurisdictions, if eligible; (2) to one qualified (lead agency) applicant; or (3) to two or more eligible jurisdictions.

(c) *Payment.* Where a grant has been awarded for the preparation of a facilities plan or other Step 1 elements, the payment schedule in the grant agreement will provide for payment upon completion of the Step 1 work or upon completion of specified tasks within the scope of the project.

(d) *Reports.* Where a grant has been awarded for facilities planning, the completion of which is expected to require more than one year, the grantee must submit a brief progress report to the Regional Administrator at three-month intervals. The progress report is to contain a minimum of narrative description, and is to describe progress in completing the approved schedule of specific tasks for the project.

§ 35.917-4 Planning scope and detail.

(a) Initially, the geographic scope of all facilities planning initiated after October 31, 1974, or facilities planning initiated after April 30, 1974, subsequent to award of a Step 1 grant therefor, shall be based upon the area delineated by the State pursuant to § 35.917-2, subject to review by the Regional Administrator. The Regional Administrator may make the preliminary delineation of the boundaries of the planning area, if the State has not done so, or may revise boundaries selected by the locality or State agency, after appropriate consultation with State and local officials.

(b) Facilities planning shall be conducted only to the extent that the Regional Administrator determines to be necessary to insure that facilities for which grants are awarded will be cost-effective and environmentally sound and to permit reasonable evaluation of grant applications and subsequent preparation of designs, construction drawings and specifications.

§ 35.917-5 Public participation.

(a) Public participation in the facilities planning process shall be consistent with Part 106 of this chapter. One or more public hearings or meetings should be held within the area to obtain public advice at the beginning of the planning process. All governmental agencies and other parties which are known to be concerned or may have an interest in the plan shall be invited to participate.

(b) A public hearing shall be held prior to the adoption of the facilities plan by the implementing governmental units. This provision shall apply to all facilities planning initiated after April 30, 1974. This public hearing for the

facilities plan may satisfy the grantee hearing requirement of Part 6 of this chapter. The Regional Administrator may require the planning entity to hold additional public hearings, if needed, to more fully discuss the plan and alternatives or to afford concerned interests adequate opportunity to express their views.

(c) The time and place of the public hearing shall be conspicuously and adequately announced, generally at least 30 days in advance. In addition, a description of the water quality problems and the principal alternatives considered in the planning process shall be displayed at a convenient local site sufficiently prior to the hearing (approximately 15 days).

(d) Appropriate local and State agencies, State and regional clearinghouses, interested environmental groups and appropriate local public officials should receive written notice of public hearings.

(e) A request to waive the hearings on a facilities plan may be submitted to the Regional Administrator in writing prior to submission of the plan. Any such request will be acted upon within 30 days by the Regional Administrator. Each request must include a brief description of the alternatives, the area that will be serviced, the scope and dates of meetings and hearings previously held, and the reasons the grantee feels a public hearing would not serve the public interest.

§ 35.917-6 Acceptance by implementing governmental units.

A facilities plan submitted for approval shall include adopted resolutions or, where applicable, executed agreements of the implementing governmental units or management agencies providing for acceptance of the plan, or assurances that it will be carried out, and statements of legal authority necessary for plan implementation. Any departures from these requirements may be approved by the Regional Administrator prior to plan submission.

§ 35.917-7 State review and certification of facilities plan.

Each facilities plan must be submitted to the State agency for review. The State must certify that (a) the plan conforms with the requirements set forth in this subpart; (b) the plan conforms with any existing final basin plans approved under section 303(e) of the Act; (c) any concerned 208 planning agency has been afforded the opportunity to comment upon the plan; and (d) the plan conforms with any waste treatment management plan approved pursuant to section 208(b) of the Act.

§ 35.917-8 Submission and approval of facilities plan.

The completed facilities plan must be submitted by the State agency and approved by the Regional Administrator. Where deficiencies in a facilities plan are discovered, the Regional Administrator shall promptly notify the State and the grantee or applicant in writing of the nature of such deficiencies and of the

recommended course of action to correct such deficiencies. Approval of a plan of study or a facilities plan will not constitute an obligation of the United States for any Step 2, Step 3, or combination Steps 2 and 3 project.

§ 35.917-9 Revision or amendment of facilities plan.

A facilities plan may include more than one Step 3 project and provide the basis for several subsequent Step 2, Step 2-3, or Step 3 projects. A facilities plan which has served as the basis for the award of a grant for a Step 2, Step 2-3, or Step 3 project shall be reviewed prior to the award of any grant for a subsequent project involving Step 2 or Step 3 to determine if substantial changes have occurred. If in the judgment of the Regional Administrator substantial changes have occurred which warrant revision or amendment, the plan shall be revised or amended and submitted for review in the same manner specified in this subpart.

§ 35.920 Grant application.

Grant applications will be submitted and evaluated in accordance with Part 30, Subpart B of this chapter.

§ 35.920-1 Eligibility.

Municipalities, intermunicipal agencies, States, or interstate agencies may apply for grant assistance.

§ 35.920-2 Procedure.

Preapplication assistance, including, where appropriate, a preapplication conference, should be requested from the State agency or the appropriate EPA Regional Office for each project for which State priority has been determined. An application must be submitted to the State agency for each proposed treatment works. The basic application shall meet the requirements for the project set forth in § 35.920-3. Submissions required for subsequent related projects shall be provided in the form of amendments to the basic application. Each such submission shall be submitted through the State agency, must be complete (see § 35.920-3), and must relate to a project for which priority has been determined in accordance with § 35.915. If any information required pursuant to § 35.920-3 has been furnished with an earlier application, the applicant need only incorporate by reference and, if necessary, update or revise such information utilizing the previously approved application.

§ 35.920-3 Contents of application.

(a) Step 1. Facilities plan and related elements required to apply for Step 2 grant assistance. An application for a grant for Step 1 shall include:

(1) A plan of study presenting (i) the proposed planning area; (ii) an identification of the entity or entities that will be conducting the planning; (iii) the nature and scope of the proposed Step 1 project, including a schedule for the completion of specific tasks; and (iv) an itemized description of the estimated costs for the project;

(2) Proposed subagreements, or an ex-

planation of the intended method of awarding subagreements for performance of any substantial portion of the project work;

(3) Required comments or approvals of relevant State, local, and Federal agencies (including "clearinghouse" requirements of OMB Circular A-95, promulgated at 38 FR 32874 on November 28, 1973).

(b) Step 2. Preparation of construction drawings and specifications. Prior to the award of a grant or grant amendment for a Step 2 project, the following must have been furnished:

(1) A facilities plan (including an environmental assessment in accordance with Part 6 of this chapter) in accordance with §§ 35.917 through 35.917-9.

(2) Satisfactory evidence of compliance with the user charge provisions of §§ 35.925-11 and 35.935-13;

(3) Satisfactory evidence of compliance with the industrial cost recovery provisions of §§ 35.925-12, 35.928, and 35.935-13, if applicable;

(4) A statement regarding availability of the proposed site, if relevant;

(5) Satisfactory evidence of a proposed or existing program for compliance with the Relocation and Land Acquisition Policies Act of 1970 in accordance with § 30.403(d) and Part 4 of this chapter, if applicable;

(6) Satisfactory evidence of compliance with other applicable Federal statutory and regulatory requirements (see Part 30, Subpart C of this chapter);

(7) Proposed subagreements or an explanation of the intended method of awarding subagreements for performance of any substantial portion of the project work.

(8) Required comments or approvals of relevant State, local, and Federal agencies (including "clearinghouse" requirements of OMB Circular A-95) if a grant application has not been previously submitted.

(c) Step 3. Building and erection of a treatment works. Prior to the award of a grant or grant amendment for a Step 3 project, each of the items specified in paragraph (b) of this section, and in addition (1) two sets of construction drawings and specifications, suitable for bidding purposes, and (2) a schedule for or evidence of compliance with §§ 35.925-10 and 35.935-12 concerning an operation and maintenance program, must have been furnished.

(d) Step 2/3. Design/Construct Project. Prior to the award of a grant or grant amendment for a design/construct project the items in paragraphs (b) and (c) of this section must have been furnished, except that, in lieu of construction drawings and specifications, the proposed performance specifications and other relevant design/construct criteria for the project must have been submitted.

(e) Training facility project. An application for grant assistance for construction of a training facility pursuant to section 109(b) of the Act shall include (1) a statement concerning the suitability of the treatment works facility for

training operation and maintenance personnel for treatment works throughout one or more States; (2) a written commitment from the State agency or agencies to carry out at such facility a program of training approved by the Regional Administrator; and (3) an engineering report, including facility design data, cost estimates for design and construction of the facility, and a schedule for completion of design and construction.

§ 35.925 Limitations on award.

Before awarding initial grant assistance for any project for a treatment works through a grant or grant amendment, the Regional Administrator shall determine that all of the applicable requirements of § 35.920-3 have been met and shall further determine:

§ 35.925-1 Facilities planning.

That the facilities planning requirements set forth in §§ 35.917 through 35.917-9 have been met. Requirements set forth in § 35.150-1 and § 35.150-2 are not applicable.

§ 35.925-2 Basin plan.

That such works are in conformity with any applicable final basin plan approved in accordance with section 303 (e) of the Act.

§ 35.925-3 Priority determination.

That such works have been determined to be entitled to priority in accordance with § 35.915, and that the award of grant assistance for the proposed project will not jeopardize the funding of any treatment works of higher priority.

§ 35.925-4 State allocation.

That the award of grant assistance for the project will not cause the total of all grant assistance awarded to applicants within a State, including grant increases, to exceed the total of all allotments and reallocations available to such State pursuant to § 35.910.

§ 35.925-5 Funding and other capabilities.

That the applicant has:

- (a) Agreed to pay the non-Federal project costs, and
- (b) Has the legal, institutional, managerial, and financial capability to insure adequate construction, operation, and maintenance of the treatment works throughout the applicant's jurisdiction.

§ 35.925-6 Permits.

That if the award is for a Step 2, Step 3, or combination Step 2 and 3 project, the applicant has provided an identification of effluent discharge limitations or, if available, a copy of a permit as required by the National Pollution Discharge Elimination System.

§ 35.925-7 Design.

That the treatment works design will be (in the case of projects involving Step 2) or has been (in the case of projects for Step 3) based upon the following:

- (a) The design, size, and capacity of such works are cost effective and relate

directly to the needs to be served by such works, including adequate reserve capacity;

(b) Such works will meet applicable effluent limitations and attain not less than secondary treatment as defined by the Administrator pursuant to section 301(b)(1)(B) and 304(d)(1) of the Act (See Part 133 of this chapter), subject to the limitations set forth in § 35.930-4;

(c) The infiltration/inflow requirements of § 35.927 have been met; and

(d) If the initial grant assistance for the project is to be awarded from funds authorized for any fiscal year beginning after June 30, 1974, subject to the limitations set forth in § 35.930-4; (1) alternative waste treatment management techniques have been studied and evaluated to provide for the application of the best practicable waste treatment technology over the life of the works consistent with the purposes of Title II of the Act, and (2) the design has, as appropriate, taken into account and allowed to the extent practicable for the application of technology, at a later date, which will provide for the reclaiming or recycling of water or otherwise eliminate the discharge of pollutants.

§ 35.925-8 Environmental review.

That the NEPA requirements (Part 6 of this chapter), applicable to the project step, have been met. Such compliance is a basic prerequisite for Step 2, Step 3, and combination Step 2 and 3 projects. An adequate assessment of expected environmental impacts, consistent with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), is required as an integral part of facilities planning initiated after April 30, 1974, in accordance with § 35.917-1.

§ 35.925-9 Civil rights.

That if the award of grant assistance is for a project involving Step 2 or 3, the applicable requirements of Title VI of the Civil Rights Act of 1964 (See Part 7 of this chapter) have been met.

§ 35.925-10 Operation and maintenance program.

If the award of grant assistance is for a project involving Step 3, that satisfactory provision has been made by the applicant for assuring proper and efficient operation and maintenance of the treatment works, in accordance with § 35.935-12, and that the State will have an effective operation and maintenance monitoring program to assure that treatment works assisted under this subpart, comply with applicable permit and grant conditions.

§ 35.925-11 User charges.

That, in the case of grant assistance awarded after March 1, 1973, for a project involving Step 2 or Step 3, an approvable plan and schedule of implementation have been developed for a system of user charges to assure that each recipient of waste treatment services within the applicants service area will pay its proportionate share of the

costs of operation and maintenance (including replacement as defined in § 35.905-17) of all waste treatment service provided by the applicant and the applicant must agree that such system(s) will be maintained. See Appendix B to this subpart.

§ 35.925-12 Industrial cost recovery.

(a) That, in the case of any grant assistance awarded after March 1, 1973, for a project involving Step 2 or Step 3, signed letters of intent have been received by the applicant from each significant industrial user to pay that portion of the grant amount allocable to the treatment of its wastes. Each such letter shall also include a statement of the industrial user's intended period of use of the treatment works. A significant industrial user is one that will contribute greater than 10 percent of the design flow or design pollutant loading of the treatment works. In addition, the applicant must agree to require all industrial users to pay that portion of the grant amount allocable to the treatment of wastes from such users.

(b) Projects awarded grant assistance prior to March 2, 1973 are subject to the requirements of § 35.835-5 in lieu of paragraph (a) of this section.

§ 35.925-13 Sewage Collection System.

That, if the project is for, or includes, sewage collection system work, such work (a) is for replacement or major rehabilitation of an existing sewer system pursuant to § 35.927-3(a) and is necessary to the total integrity and performance of the waste treatment works servicing such community, or (b) is for a new sewer system in a community in existence on October 18, 1972, with sufficient existing or planned capacity to adequately treat such collected sewage. Replacement or major rehabilitation of an existing sewer system may be approved only if cost effective and must result in a sewer system design capacity equivalent only to that of the existing system plus a reasonable amount for future growth. A community, for purposes of this section, would include any area with substantial human habitation on October 18, 1972. No award may be made for a new sewer system in a community in existence on October 18, 1972 unless it is further determined by the Regional Administrator that the bulk (generally two-thirds) of the flow design capacity through the sewer system will be for waste waters originating from the community (habitation) in existence on October 18, 1972.

§ 35.925-14 Compliance with Environmental Laws.

That the treatment works will comply with all pertinent requirements of the Clean Air Act and other applicable Federal, State and local environmental laws and regulations.

§ 35.925-15 Treatment of industrial wastes.

That the allowable project costs do not include costs allocable to the treatment

for control or removal of pollutants in wastes introduced into the treatment works by industrial users unless the applicant is required to remove such pollutants introduced from non-industrial sources; and that the project is included in a waste treatment system, a principal purpose of which project and system is the treatment of domestic wastes of the entire community, area, region or district concerned. A "waste treatment system", for purposes of this section, means one or more treatment works which provide integrated but not necessarily interconnected waste disposal for the community, area, region or district. See the pretreatment standards set forth in Part 128 of this Chapter.

§ 35.925-16 Federal activities.

That the allowable project costs do not include costs allocable to the treatment of wastes from major activities of the Federal Government, which another Federal Agency has agreed to pay. Such Federal agencies may extend, over a period of years, their contributions to support capital costs incurred by municipal treatment facilities which provide service to them.

§ 35.925-17 Retained amounts for reconstruction and expansion.

That the allowable project costs have been reduced by an amount equal to the unexpended balance of the amounts retained by the applicant for future reconstruction and expansion pursuant to § 35.928-2, together with interest earned thereon.

§ 35.925-18 Limitation upon project costs incurred prior to award.

That project construction has not been initiated prior to the approved date of initiation of construction (as defined in § 35.905-4), except as otherwise provided in this section. Generally, payment is not authorized for costs incurred prior to the approved date of initiation of construction, which shall be established in the grant agreement, in accordance with paragraphs (a), (b), and (c) of this section.

(a) Steps 1 or 2:

(1) No prior approval or prior grant award is required for Step 1 or Step 2 work initiated prior to November 1, 1974; payment for all such allowable costs incurred after the approved date of initiation of construction is authorized in conjunction with the first award of grant assistance.

(2) In the case of Step 1 or Step 2 project work initiated after October 31, 1974, no payment is authorized for:

(i) Step 1 costs incurred prior to the date of approval of a plan to study (see §§ 35.917 and 35.930-3(a)(1)); and

(ii) Step 2 costs incurred prior to the date of approval of a facilities plan (see §§ 35.917 and 35.930-3(b)(1)); payment for all Step 1 or Step 2 costs incurred after such dates of approval are authorized in conjunction with the first award of grant assistance.

(3) Where Step 1 or Step 2 project work is initiated after June 30, 1975, no

grant assistance for the Step 1 or Step 2 project work may be awarded unless such award precedes initiation of the project work: *Provided*, That in lieu of award of a Step 1 grant after June 30, 1975, the State agency may request the Regional Administrator to reserve funds for Step 1 grant assistance (based upon approval of the plan of study) and to defer award of grant assistance for Step 1 work, which award, however, must in any event be made within the allotment period for the reserved funds.

(b) Step 3: Except as otherwise provided in this subparagraph, no grant assistance for a Step 3 project may be awarded unless such award precedes initiation of the Step 3 construction. Advance acquisition of major equipment items requiring long lead times, or advance construction of minor portions of treatment works, in emergencies or instances where delay could result in significant cost increases, may be approved by the Regional Administrator, but only (1) if the applicant submits a written and adequately substantiated request for approval, and (2) if written approval by the Regional Administrator is obtained prior to initiation of the advance acquisition or advance construction.

(c) The approval of a plan of study, a facilities plan, or of advance acquisition of equipment or advance construction will not constitute a commitment for approval of grant assistance for a subsequent treatment works project, but will allow payment for the previously approved costs as allowable project costs upon subsequent award of grant assistance, if requested prior to grant award (see § 35.945(a)). In instances where such approval is obtained, the applicant proceeds at its own risk, since payment for such costs cannot be made unless and until grant assistance for the project is awarded.

§ 35.925-19 Section 208: Agencies and plans.

That, pursuant to section 208(d) of the Act, after a waste treatment management agency has been designated for an area, and a final plan for such area has been approved, the applicant is the designated agency and the treatment works project is in conformity with such plan.

§ 35.927 Sewer system evaluation and rehabilitation.

(a) All applicants for grant assistance awarded after July 1, 1973, must demonstrate to the satisfaction of the Regional Administrator that each sewer system discharging into the treatment works project for which grant application is made is not or will not be subject to excessive infiltration/inflow. The determination whether excessive infiltration/inflow exists, may take into account, in addition to flow and related data, other significant factors such as cost-effectiveness (including the cost of substantial treatment works construction delay, see Appendix A to this subpart), public health emergencies, the effects of plant bypassing or overloading, or relevant economic or environmental factors.

(b) The determination whether or not excessive infiltration/inflow exists will generally be accomplished through a sewer system evaluation consisting of (1) certification by the State agency, as appropriate; and, when necessary (2) an infiltration/inflow analysis; and, if appropriate, (3) a sewer system evaluation survey followed by rehabilitation of the sewer system to eliminate an excessive infiltration/inflow defined in the sewer system evaluation. Information submitted to the Regional Administrator for such determination should be the minimum necessary to enable a judgment to be made.

(c) Guidelines on sewer system evaluation published by the Administrator provide further advisory information.

§ 35.927-1 Infiltration/Inflow analysis.

(a) The infiltration/inflow analysis shall demonstrate the non-existence or possible existence of excessive infiltration/inflow in each sewer system tributary to the treatment works. The analysis should identify the presence, flow rate, and type of infiltration/inflow conditions, which exist in the sewer systems. Information to be obtained and evaluated in the analysis should include, to the extent appropriate, the following:

(1) Estimated flow data at the treatment facility, all significant overflows and bypasses, and, if necessary, flows at key points within the sewer system.

(2) Relationship of existing population and industrial contribution to flows in the sewer system.

(3) Geographical and geological conditions which may affect the present and future flow rates or correction costs for the infiltration/inflow.

(4) A discussion of age, length, type, materials of construction and known physical condition of the sewer system.

(b) For determination of the possible existence of excessive infiltration/inflow, the analysis shall include an estimate of the cost of eliminating the infiltration/inflow conditions. These costs shall be compared with estimated total costs for transportation and treatment of the infiltration/inflow. Cost-Effectiveness Analysis Guidelines (Appendix A to this subpart), which contain advisory information, should be consulted with respect to this determination.

(c) If the infiltration/inflow analysis demonstrates the existence or possible existence of excessive infiltration/inflow a detailed plan for a sewer system evaluation survey shall be included in the analysis. The plan shall outline the tasks to be performed in the survey and their estimated costs.

§ 35.927-2 Sewer system evaluation survey.

(a) The sewer system evaluation survey shall consist of a systematic examination of the sewer systems to determine the specific location, estimated flow rate, method of rehabilitation and cost of rehabilitation versus cost of transportation and treatment for each defined source of infiltration/inflow.

(b) The results of the sewer system evaluation survey shall be summarized in a report. In addition, the report shall include:

(1) A justification for each sewer section cleaned and internally inspected.

(2) A proposed rehabilitation program for the sewer systems to eliminate all defined excessive infiltration/inflow.

§ 35.927-3 Rehabilitation.

(a) The scope of each treatment works project defined within the Facilities Plan as being required for implementation of the Plan, and for which Federal assistance will be requested, shall define (1) any necessary new treatment works construction, and (2) any rehabilitation work determined by the sewer system evaluation to be necessary for the elimination of excessive infiltration/inflow. However, rehabilitation which should be a part of the applicant's normal operation and maintenance responsibilities shall not be included within the scope of a Step 3 treatment works project.

(b) Grant assistance for a Step 3 project segment consisting of rehabilitation work may be awarded concurrently with Step 2 work for the design of the new treatment works construction.

§ 35.927-4 Sewer use ordinance.

Each applicant for grant assistance for a Step 2, Step 3, or combination Steps 2 and 3 project shall demonstrate to the satisfaction of the Regional Administrator that a sewer use ordinance or other legally binding requirement will be enacted and enforced in each jurisdiction served by the treatment works project before the completion of construction. The ordinance shall prohibit any new connections from inflow sources into the sanitary sewer portions of the sewer system and shall ensure that new sewers and connections to the sewer system are properly designed and constructed.

§ 35.927-5 Project procedures.

(a) *State certification.* The State agency may (but need not) certify that excessive infiltration/inflow does or does not exist. The Regional Administrator will determine that excessive infiltration/inflow does not exist on the basis of State certification, if he finds that the State had adequately established the basis for its certification through submission of only the minimum information necessary to enable a judgment to be made. Such information could include a preliminary review by the applicant or State, for example, of such parameters as per capita design flow, ratio of flow to design flow, flow recorder flow estimates, bypasses or overflows, or summary analysis of hydrological, geographical, and geological conditions, but this review would not usually be equivalent to a complete infiltration/inflow analysis. State certification must be on a project-by-project basis. If the Regional Administrator determines on the basis of State certification that the treatment works is or may be subject to excessive infiltration/

inflow, no Step 2 or Step 3 grant assistance may be awarded except as provided in paragraph (c) of this section.

(b) *Pre-award sewer system evaluation.* Generally, except as otherwise provided in paragraph (c) of this section, an adequate sewer system evaluation, consisting of a sewer system analysis and, if required, an evaluation survey, is an essential element of Step 1 facilities planning and is a prerequisite to the award of Step 2 or 3 grant assistance. If the Regional Administrator determines through State Certification or an infiltration/inflow analysis that excessive infiltration/inflow does not exist, Step 2 or 3 grant assistance may be awarded. If on the basis of State certification or the infiltration/inflow analysis, the Regional Administrator determines that possible excessive infiltration/inflow exists, an adequate sewer system evaluation survey and, if required, a rehabilitation program must be furnished, except as set forth in paragraph (c) of this section before grant assistance for Step 2 or 3 can be awarded. A Step 1 grant may be awarded for the completion of this segment of Step 1 work, and, upon completion of Step 1, grant assistance for a Step 2 or 3 project (for which priority has been determined pursuant to § 35.915) may be awarded.

(c) *Exception.* In the event it is determined by the Regional Administrator that the treatment works would be regarded (in the absence of an acceptable program of correction) as being subject to excessive or possible excessive infiltration/inflow, grant assistance may be awarded provided that the applicant establishes to the satisfaction of the Regional Administrator that the treatment works project for which grant application is made will not be significantly changed by any subsequent rehabilitation program or will be a component part of any rehabilitated system: *Provided*, That the applicant agrees to complete the sewer system evaluation and any resulting rehabilitation on an implementation schedule the State accepts (subject to approval by the Regional Administrator), which schedule shall be inserted as a special condition in the grant agreement. Compliance with this schedule shall be accomplished pursuant to § 35.935-16 and § 30.304 of this chapter.

(d) Municipalities may submit the infiltration/inflow analysis and when appropriate the sewer system evaluation survey, through the State agency, to the Regional Administrator for his review at any time prior to application for a treatment works grant. Based on such a review, the Regional Administrator shall provide the municipality with a written response indicating either his concurrence or nonconcurrence. The Regional Administrator must concur with the sewer system evaluation survey plan before the work is performed for the survey to be an allowable cost.

§ 35.928. Industrial cost recovery.

The system for industrial cost recovery shall be approved by the Regional Ad-

ministrator and shall be implemented and maintained by the grantee in accordance with § 35.935-13 and the following requirements.

§ 35.928-1 Recovered amounts.

(a) Each year during the industrial cost recovery period, each industrial user of the treatment works shall pay its share of the total amount of the grant and any grant amendment awarded pursuant to this subpart, divided by the recovery period.

(b) The industrial cost recovery period shall be equal to 30 years or the useful life of the treatment works, whichever is less.

(c) Payments shall be made by industrial users no less often than annually. The first payment by an industrial user shall be made not later than 1 year after such user begins use of the treatment works.

(d) An industrial user's share shall be based on all factors which significantly influence the cost of the treatment works. Factors such as strength, volume, and delivery flow rate characteristics shall be considered and included to insure a proportional distribution of the grant assistance allocable to industrial use to all industrial users of the treatment works. As a minimum, an industry's share shall be proportional to its flow, in relation to treatment works flow capacity.

(e) If there is a substantial change in the strength, volume, or delivery flow rate characteristics introduced into the treatment works by an industrial user, such user's share shall be adjusted accordingly.

(f) If there is an expansion or upgrading of the treatment works, each existing industrial user's share shall be adjusted accordingly.

(g) An industrial user's share shall include only that portion of the grant assistance allocable to its use or to capacity firmly committed for its use.

(h) All unallocated treatment works capacity must conform with the requirements of section 204(a)(5) of the Act. Cost-effectiveness guidelines are published as Appendix A to this subpart to furnish additional advisory information concerning the implementation of section 212(2)(C) of the Act.

(i) An industrial user's share shall not include an interest component.

§ 35.928-2 Retained amounts.

(a) The grantee shall retain 50 percent of the amounts recovered from industrial users. The remainder, together with any interest earned thereon, shall be returned to the U.S. Treasury on an annual basis.

(b) A minimum of 80 percent of the retained amounts, together with interest earned thereon, shall be used solely for the eligible costs (in accordance with § 35.940) of the expansion or reconstruction of treatment works associated with the project and necessary to meet the requirements of the Act. The grantee shall obtain the written approval of the Regional Administrator prior to commit-

ment of the retained amounts for any expansion and reconstruction. The remainder of the retained amounts may be used as the grantee sees fit.

(c) Pending use, the grantee shall invest the retained amounts for reconstruction and expansion in: (1) Obligations of the U.S. Government; or (2) obligations guaranteed as to principal and interest by the U.S. Government or any agency thereof; or (3) shall deposit such amounts in accounts fully collateralized by obligations of the U.S. Government or by obligations fully guaranteed as to principal and interest by the U.S. Government or any agency thereof.

§ 35.930 Award of grant assistance.

Approval by the Regional Administrator of an application or amendments thereto through execution of a grant agreement (including a grant amendment), in accordance with § 30.305 of this subchapter, shall constitute a contractual obligation of the United States for the payment of the Federal share of the allowable project costs, as determined by the Regional Administrator. Information concerning the approved project furnished in accordance with § 35.920-3 shall be deemed to be incorporated in the grant agreement.

§ 35.930-1 Types of projects.

(a) The Regional Administrator may award grant assistance for the following types of projects pursuant to § 35.925:

(1) *Step 1.* A facilities plan and/or related elements required to apply for Step 2 grant assistance (see § 35.920-3(b)); *Provided*, That he determines that the applicant has submitted the items required pursuant to § 35.920-3(a);

(2) *Step 2.* Preparation of construction drawings and specifications: *Provided*, That he determines that the applicant has submitted the items required pursuant to § 35.920-3(b);

(3) *Step 3.* Building and erection of a treatment works: *Provided*, That he determines that the applicant has submitted the items required pursuant to § 35.920-3(c); or

(4) *Steps 2 and 3.* A combination of design (Step 2) and construction (Step 3) for a treatment works in the case of grants awarded after March 1, 1973:

(i) Where the Regional Administrator determines that compelling water quality enforcement considerations or public health emergencies warrant award of such grant assistance to assure expeditious construction of such treatment works, or

(ii) Where the Regional Administrator determines that award of such grant assistance will minimize administrative requirements in the case of projects not requiring a substantial amount of Federal assistance: *Provided*, That the award authority provided by this subparagraph

(4) is subject to the following conditions: that (A) the Regional Administrator determines that the applicant has submitted the items pursuant to § 35.920-3 (b); (B) the United States will be contractually obligated to pay only the Fed-

eral share of the approved Step 2 work and will not be contractually obligated to pay the Federal share of Step 3 project costs unless and until the plans and specifications developed during Step 2 are approved; and (C) funds fiscally obligated for Step 3 will be deobligated unless two sets of construction drawings and specifications suitable for bidding purposes are submitted to the Regional Administrator and approved prior to initiation of construction for the building and erection of the treatment works.

(5) *Step 2/3:* Design/construction of treatment works (Steps 2 and 3): *Provided*, That he determines that the applicant has submitted the items required pursuant to § 35.920-3(d): *And further provided*, That such grant assistance must be awarded pursuant to EPA guidelines for the award of design/construct projects, and that the requirements of such guidelines are met.

(b) The Regional Administrator may award Federal assistance by a grant or grant amendment from any allotment or reallocation available to a State pursuant to § 35.910 for payment of 100 percent of any cost of construction of a treatment works (for not more than one facility in any State) required to train and upgrade waste treatment works operation and maintenance personnel, from one or more States, pursuant to section 109(b) of the Act: *Provided*, That the Federal cost of any such training facility shall not exceed \$250,000.

§ 35.930-2 Grant amount.

The amount of grant assistance shall be set forth in the grant agreement. The grant amount may not exceed the amount of funds available from the State allotments and reallocations pursuant to § 35.910. Grant payments will be limited to the Federal share of allowable project costs incurred within the grant amount or any increases in such amount effected through grant amendments in accordance with § 35.955, pursuant to the negotiated payment schedule included in the grant agreement.

§ 35.930-3 Grant term.

The grant agreement shall establish the period within which the project must be completed, in accordance with § 30.305-1 of this chapter, subject to excusable delay.

§ 35.930-4 Project scope.

The grant agreement must define the scope of the project for which Federal assistance is awarded under the grant. The project scope must include a step or an identified segment thereof. With respect to any grant assistance for a treatment works project which is initially funded from funds allocated for any fiscal year beginning after June 30, 1974, provision must be made for the application of best practicable waste treatment technology over the life of the treatment works. However, a grant may be made for a segment of Step 3 treatment works construction, when that segment in and of itself does not provide for achieve-

ment of applicable effluent discharge limitations (secondary treatment, best practicable waste treatment technology, or water quality effluent limitations), provided that: (a) The segment is to be a component of an operable treatment works which will provide for achievement of the applicable effluent discharge limitations, and (b) a commitment for completion of the complete treatment works is submitted to the Regional Administrator and is incorporated as a special condition in the grant agreement.

§ 35.930-5 Federal share.

The grant shall be 75 percent of the estimated total cost of construction of the project approved by the Regional Administrator in the grant agreement, except as otherwise provided in §§ 35.925-15, 35.925-16, 35.925-17, and 35.930-1(b).

§ 35.930-6 Limitation on Federal share.

The grantee must exert its best efforts to perform the project work as specified in the grant agreement within the approved cost ceiling. If at any time the grantee has reason to believe that the costs which it expects to incur in the performance of the project will exceed or be substantially less than the then approved estimated total project cost, the grantee must notify the Regional Administrator and the State agency promptly in writing to that effect, giving the revised estimate of such total cost for the performance of the project then or as soon thereafter as practicable, pursuant to 40 CFR 30.900. Delay in submission of such notice and excess cost information may prejudice approval of an increase in the grant amount. The United States shall not be obligated to pay for costs incurred in excess of the approved grant amount or any amendment thereof until the State has approved an increase in the grant amount from available allotments and the Regional Administrator has approved such increase through issuance of a written grant amendment pursuant to §§ 35.915 and 35.955. Grant payments will be made pursuant to § 35.945.

§ 35.935 Grant conditions.

In addition to the EPA General Grant Conditions (Subpart C of Part 30 and Appendix A to this subchapter), each treatment works grant shall be subject to the following conditions:

§ 35.935-1 Non-Federal construction costs.

The grantee agrees to pay, pursuant to section 204(a)(4) of the Act, the non-Federal costs of treatment works construction associated with the project and commits itself to complete the construction of the operable treatment works (see § 35.905-15) and complete waste treatment system (see § 35.905-3) of which the project is a part.

§ 35.935-2 Procurement; nonrestrictive specifications.

(a) *General.* The grantee must comply with § 35.938 of this subpart in the

construction of any Step 3 or Step 2-3 project. Performance of Step 2 and Step 3 project work may not be accomplished by force account except for (1) Step 1 or Step 3 infiltration/inflow work for which prior written approval has been obtained in accordance with §§ 35.927 to 35.927-5 and (2) segments of Step 3 work the cost of which is estimated to be under \$25,000. The Regional Administrator will cause appropriate review of grantee procurement methods to be made from time to time.

(b) *Nonrestrictive specifications.* No specification for bids or statement of work in connection with such works shall be written in such a manner as to contain proprietary, exclusionary, or discriminatory requirements other than those based upon performance, unless such requirements are necessary to test or demonstrate a specific thing or to provide for necessary interchangeability of parts and equipment, or at least two brand names or trade names of comparable quality or utility are listed and are followed by the words "or equal." The single base bid method of solicitation for equipment and parts for determination of a low, responsive bidder may not be utilized. With regard to materials, if a single material is specified, the grantee must be prepared to substantiate the basis for the selection of the material.

§ 35.935-3 Bonding and insurance.

On contracts for the building and erection of treatment works (Step 3) exceeding \$100,000, each bidder must furnish a bid guarantee equivalent to 5 percent of the bid price. In addition the contractor awarded either a design/construct contract or a construction contract for Step 3 must furnish performance and payment bonds, each of which shall be in an amount not less than 100 percent of the contract price. Construction contracts less than \$100,000 shall be subject to State and local requirements relating to bid guarantees, performance and payment bonds. Contractors should obtain such construction insurance (e.g., fire and extended coverage, workmen's compensation, public liability and property damage, and "all risk" builders risk) as is customary and appropriate.

§ 35.935-4 State and local laws.

The construction of the project, including the letting of contracts in connection therewith, shall conform to the applicable requirements of State, territorial, and local laws and ordinances to the extent that such requirements do not conflict with Federal laws and this subchapter.

§ 35.935-5 Davis-Bacon and related statutes.

In the case of any project involving Step 3, the grantee must consult with the Regional Administrator prior to issuance of invitation for bids concerning compliance with Davis-Bacon and related statutes required pursuant to § 30.403 (a), (b), and (c) of this chapter.

§ 35.935-6 Equal employment opportunity.

Generally, contracts involving Step 3, of \$10,000 and above, are subject to equal employment opportunity requirements under Executive Order 11246, including rules, regulations and orders issued thereunder (see Part 8 of this chapter). The grantee must consult with the Regional Administrator concerning equal employment opportunity requirements prior to issuance of invitation for bids where the cost of construction work is estimated to be more than \$1,000,000, or where required by the grant agreement.

§ 35.935-7 Access.

Any contract for Step 1, Step 2 or Step 3 work must provide that representatives of the Environmental Protection Agency and the State will have access to the work whenever it is in preparation or progress and that the contractor will provide proper facilities for such access and inspection. Such contract must also provide that the Regional Administrator, the Comptroller General of the United States, or any authorized representative shall have access to any books, documents, papers, and records of the contractor which are pertinent to the project for the purpose of making audit, examination, excerpts, and transcriptions thereof.

§ 35.935-8 Supervision.

In the case of any project involving Step 3, the grantee will provide and maintain competent and adequate engineering supervision and inspection of the project to insure that the construction conforms with the approved plans and specifications.

§ 35.935-9 Project completion.

The grantee agrees to expeditiously initiate and complete the project or cause it to be constructed and completed in accordance with the grant agreement and application approved by the Regional Administrator. The Regional Administrator must terminate the grant if initiation of construction for a Step 3 project has not occurred within one year after award of grant assistance for such project: *Provided*, That the Regional Administrator may defer such termination for not more than six additional months if he determines that there is good cause for the delay in initiation of project construction.

§ 35.935-10 Copies of contract documents.

In addition to the notification of project changes pursuant to § 30.900-1 of this chapter, a copy of any prime contract or modification thereof and of revisions to plans and specifications must be promptly submitted to the Regional Administrator.

§ 35.935-11 Project changes.

In addition to the notification of project changes required pursuant to § 30.900-1 of this chapter, prior approval by

the Regional Administrator and the State agency is required for project changes which may (a) substantially alter the design and scope of the project, (b) alter the type of treatment to be provided, (c) substantially alter the location, size, capacity, or quality of any major item of equipment; or (d) increase the amount of Federal funds needed to complete the project: *Provided*, That prior EPA approval is not required for changes to correct minor errors, minor changes, or emergency changes. No approval of a project change pursuant to § 35.900 of this chapter shall commit or obligate the United States to any increase in the amount of the grant of payments thereunder unless a grant increase is approved pursuant to § 35.955. The preceding sentence shall not preclude submission or consideration of a request for a grant amendment pursuant to § 30.901 of this chapter.

(a) The grantee must make adequate provisions satisfactory to the Regional Administrator for assuring economic, effective, and efficient operation and maintenance of such works in accordance with a plan of operation approved by the State water pollution control agency or, as appropriate, the interstate agency, after construction thereof.

(b) As a minimum, such plan shall include provision for: (1) An operation and maintenance manual for each facility, (2) an emergency operating and response program, (3) properly trained management, operation and maintenance personnel, (4) adequate budget for operation and maintenance, (5) operational reports, and (6) provisions for laboratory testing adequate to determine influent and effluent characteristics and removal efficiencies.

(c) The Regional Administrator shall not pay (1) more than 50 percent of the Federal share of any Step 3 project unless the grantee has furnished a draft of the operation and maintenance manual for review, or adequate evidence of timely development of such a draft, or (2) more than 80 percent of the Federal share unless the grantee has furnished a satisfactory final operation and maintenance manual.

§ 35.935-13 User charges and industrial cost recovery.

(a) The grantee must obtain the approval of the Regional Administrator of the system of industrial cost recovery (see § 35.928) and of the system of user charges. The Regional Administrator shall not pay more than 50 percent of the Federal share of any Step 3 project unless the grantee has submitted adequate evidence of timely development of its system(s) of user charges and industrial cost recovery nor more than 80 percent of such Federal share unless the Regional Administrator has approved such system(s).

(b) The Regional Administrator may approve a user charge system in accordance with the following criteria:

(1) The user charge system must result in the distribution of the cost of operation and maintenance of treatment works within the grantee's precise area to each user (or user class) in proportion to such user's contribution to the total wastewater loading of the treatment works. Factors such as strength, volume, and delivery flow rate characteristics shall be considered and included as the basis for the user's contribution to ensure a proportional distribution of operation and maintenance costs to each user (or user class).

(2) For the first year of operation, operation and maintenance costs shall be based upon past experience for existing treatment works or some other rational method that can be demonstrated to be applicable.

(3) The grantee shall review user charges annually and revise them periodically to reflect actual treatment works operation and maintenance costs.

(4) The user charge system must generate sufficient revenue to offset the cost of all treatment works operation and maintenance provided by the grantee.

(5) The user charge system must be incorporated in one or more municipal legislative enactments or other appropriate authority. If the project is a regional treatment works accepting wastewaters from treatment works owned by others, then the subscribers receiving waste treatment services from the grantee shall have adopted user charge systems. Such user charge systems shall also be incorporated in the appropriate municipal legislative enactments or other appropriate authority.

(c) Upon approval of a grantee's system(s) of user charges and industrial cost recovery, implementation and maintenance of such approved system(s) and implementation schedules therefor, shall become a condition of the grant and the grantee shall be subject to the provisions with respect to non-compliance with grant conditions of § 30.404 of this chapter.

(d) The grantee must maintain such records as are necessary to document such compliance.

(e) Guidelines containing illustrative examples of acceptable user charge and industrial cost recovery systems may be consulted for advisory information. The user charge guidelines are contained in Appendix B to this subpart. Cost Recovery Guidelines are published separately and may be obtained from the EPA Regional Office.

§ 35.935-14 Final inspection.

The grantee must notify the Regional Administrator through the State Agency of the completion of Step 3 project construction. The Regional Administrator shall cause final inspection to be made within 60 days of the receipt of the notice. Upon completion of the final inspection and upon determination by the Regional Administrator that the treatment works have been satisfactorily constructed in accordance with the grant

agreement, the grantee may make a request for final payment pursuant to § 35.945(e).

§ 35.935-15 Utilization of small and minority businesses.

It is the policy of the Environmental Protection Agency that grantees must utilize to the maximum practical extent small and minority businesses in procurement under grants involving Steps 1, 2, or 3. In the case of grants of \$10,000,000 or more grantees must institute an affirmative program for the utilization of small and minority businesses prior to award of the grant.

§ 35.935-16 Sewer use ordinance and evaluation/rehabilitation program.

The grantee must obtain the approval of the Regional Administrator of its sewer use ordinance, pursuant to § 35.927-4 of this subpart. The Regional Administrator shall not pay more than 80 percent of the Federal share of any Step 3 project unless he has approved the grantee's sewer use ordinance, and the grantee is complying with the sewer system evaluation and rehabilitation schedule incorporated in the grant agreement pursuant to § 35.927-5.

§ 35.935-17 Training facility.

If assistance has been provided for the construction of a treatment works required to train and upgrade waste treatment works operation and maintenance personnel, pursuant to § 35.930-1(b) and 35.929-3(e), the grantee must provide assurance that the treatment works will be operated as such a training facility for a period of at least ten years, upon completion of construction.

§ 35.937 Contracts for personal and professional services. [Reserved]

§ 35.938 Construction contracts of grantees.

§ 35.938-1 Applicability.

This section applies to contracts awarded by grantees for any Step 3 project or Step 2+3 project, except personal and professional service contracts.

§ 35.938-2 Performance by contract.

It is the policy of the Environmental Protection Agency to encourage free and open competition with regard to project work performed by contract. The project work shall be performed under one or more contracts awarded by the grantee to private firms, except for force account work authorized by § 35.935-2. The following sections define EPA policy for the implementation of the procurement standards set forth in Office of Management and Budget Circular No. A-102, Attachment O (printed at 38 FR 21345, August 7, 1973). Grantee procurement systems should as a minimum provide for the following:

§ 35.938-3 Type of contract.

Each contract shall be either a fixed-price (lump sum) contract or fixed-rate (unit price) contract, or a combination

of the two, unless the Regional Administrator gives advance written approval for the grantee to use some other method of contracting. The cost-plus-a-percentage of cost method of contracting shall not be used.

§ 35.938-4 Formal advertising.

Each contract shall be awarded by means of formal advertising, unless negotiation is permitted in accordance with § 35.938-5. Formal advertising shall be in accordance with the following:

(a) *Adequate public notice.* The grantee will cause adequate notice to be given of the solicitation by publication in newspapers or journals of general circulation, beyond the grantee's locality (Statewide, generally) inviting bids on the project work, and stating the method by which bidding documents may be obtained and/or examined. Where the estimated prospective cost of Step 3 construction is ten million dollars or more, such notice must generally be published in trade journals of nationwide distribution. The grantee should in addition solicit bids directly from bidders, if it maintains a bidders list.

(b) *Adequate time for preparing bids.* Adequate time, generally not less than 30 days must be allowed between the date when public notice pursuant to paragraph (a) of this section is first published and the date by which bids must be submitted. Bidding documents (including specifications and drawings) shall be available to prospective bidders from the date when such notice is first published.

(c) *Adequate bidding documents.* A reasonable number of bidding documents (invitations for bid) shall be prepared by grantee and shall be furnished upon request on a first-come, first-served basis. A complete set of bidding documents shall be maintained by grantee and shall be available for inspection and copying by any party. Such bidding documents shall include:

(1) A complete statement of the work to be performed, including necessary drawings and specifications, and the required completion schedule. (Drawings and specifications may be made available for inspection instead of being furnished.);

(2) The terms and conditions of the contract to be awarded;

(3) A clear explanation of the method of bidding and the method of evaluation of bid prices, and the basis and method for award of the contract;

(4) Responsibility requirements or criteria which will be employed in evaluating bidders; *Provided*, That an experience requirement or performance bond may not be utilized unless adequately justified under the particular circumstances by the grantee;

(5) The following statement:

Any contract or contracts awarded under this Invitation for Bids are expected to be funded in part by a grant from the United States Environmental Protection Agency. Neither the United States nor any of its de-

partments, agencies or employees is or will be a party to this invitation for bids or any resulting contract;

and

(6) A copy of § 35.938 and § 35.939.

(d) *Sealed bids.* The grantee shall provide for bidding by sealed bid and for the safeguarding of bids received until public opening.

(e) *Amendments to bidding documents.* If grantee desires to amend any part of the bidding documents (including drawings and specifications) during the period when bids are being prepared, the amendments shall be communicated in writing to all firms who have obtained bidding documents in time to be considered prior to the bid opening time; when appropriate, the period for submission of bids shall be extended.

(f) *Bid modifications.* A firm which has submitted a bid shall be allowed to modify or withdraw its bid prior to the time of bid opening.

(g) *Public opening of bids.* Grantee shall provide for a public opening of bids at the place, date and time announced in the bidding documents.

(h) *Award to the low responsive, responsible bidder.* (1) After bids are opened, they shall be evaluated by grantee in accordance with the methods and criteria set forth in the bidding documents.

(2) Unless all bids are rejected, award shall be made to the low, responsive, responsible bidder.

(3) If award is intended to be made to a firm which did not submit the lowest bid, a written statement shall be prepared prior to any award and retained by the grantee explaining why each lower bidder was deemed not responsive or nonresponsive.

(4) State or local laws, ordinances, regulations or procedures which are designed or operate to give local or in-State bidders preference over other bidders shall not be employed in evaluating bids.

§ 35.938-5 Negotiation.

Negotiation of contracts (i.e., award of contracts by any method other than formal advertising) is authorized if it is impracticable and infeasible to use formal advertising. Negotiated contracts must be competitively awarded to the maximum practicable extent. Generally, procurements may be negotiated by the grantee if:

(a) Public exigency will not permit the delay incident to advertising (e.g., an emergency procurement);

(b) The material or service to be procured is available from only one person or firm (and, if the procurement is expected to aggregate more than \$5,000, the Regional Administrator has given prior approval);

(c) The aggregate amount involved does not exceed \$2,500, (except as provided in paragraph (b) of this section);

(d) The procurement is for personal or professional services, or for any service to be rendered by a university or other educational institution;

(e) No responsive, responsible bids at acceptable price levels have been received after formal advertising, and the Regional Administrator has given advance written approval;

(f) The procurement is for material or services where the prices are established by law, for technical items or equipment requiring standardization and interchangeability of parts with existing equipment, for experimental, developmental or research work, for highly perishable materials, resale, or for technical or specialized supplies requiring substantial initial investment for manufacture. Any negotiated procurement under this paragraph (f) of this section, other than for perishable materials must be approved in advance by the Regional Administrator; or

(g) Negotiation of contracts is otherwise authorized by Federal law, rules, or regulations or approved prior to the procurement by the Regional Administrator.

§ 35.939 Compliance with procurement requirements.

(a) *Grantee responsibility.* The grantee is primarily responsible for selecting the low, responsive, and responsible bidder in accordance with applicable requirements of State, territorial, or local laws or ordinances, as well as the specific requirements of Federal law or this subchapter directly affecting the procurement (for example, the nonrestrictive specification requirement of § 35.938-2(b) or the equal employment opportunity requirement of § 35.935-6) and for the initial resolution of complaints based upon alleged violations. If complaint is made to the Regional Administrator concerning an alleged violation of Federal law or this subchapter in the procurement of construction services or materials for a project involving Step 3, the complaint will be referred to the grantee for resolution. The grantee must promptly determine each such complaint upon its merits permitting the complaining party as well as any other interested party who may be adversely affected, to state in writing or at a conference the basis for their views concerning the proposed procurement. The grantee must promptly furnish to the complaining party and to other affected parties, by certified mail, a written summary of its determination, substantiated by an engineering and legal opinion, providing a justification for its determination. See paragraph (c) of the section for applicable time limitations.

(b) *Regional Administrator responsibility.* A party adversely affected by an adverse determination of a grantee made pursuant to paragraph (a) of this section, concerning an alleged violation of a specific requirement of Federal law or this subchapter directly affecting the procurement of construction services or material for a project involving Step 3 may request the Regional Administrator to review an adverse determination, subject to the time limitation set forth in paragraph (c) of this section. A copy of

the written adverse determination and supporting justification shall be transmitted with the request for review, together with a statement of the specific reasons why the proposed grantee procurement action would violate Federal requirements. The Regional Administrator will afford both the grantee and the complaining party, as well as any other interested party who may be adversely affected, an opportunity to present the basis for their views in writing or at a conference, and he shall promptly state in writing the basis for his determination of the protest. If the grantee proposes to award the contract or to approve award of a specified sub-item under the contract to a bidder other than the low bidder, the grantee will bear the burden of proving that its determination concerning responsiveness of the low bid is in accordance with Federal law and this subchapter; or, if the basis for the grantee's determination is a finding that the low bidder is not responsible, the grantee must establish and substantiate the basis for its determination and must establish that such determination has been made in good faith. The written determination by the Regional Administrator shall be promptly furnished to the grantee and to the complainant.

(c) *Time limitations.* Complaints should be made pursuant to paragraph (a) of this section as early as possible during the procurement process, preferably prior to issuance of an invitation for bids to avoid disruption of the procurement process: *Provided*, That a complaint authorized by paragraph (a) of this section must be mailed by certified mail (return receipt requested) or delivered no later than five working days after the bid opening. A request for review by the Regional Administrator pursuant to paragraph (b) of this section must be received by the Regional Administrator within one week after the complaining party received the grantee's adverse determination.

(d) *Deferral of Procurement Action.* Where the grantee has received a written complaint pursuant to paragraph (a) of this section, it must defer issuance of its solicitation or award or notice to proceed under the contract (as appropriate) for ten days after mailing or delivery of any written adverse determination. Where the Regional Administrator has received a written protest pursuant to paragraph (b) of this section, he must notify the grantee promptly and the grantee must defer issuance of its solicitation or award of the construction contract, as appropriate, until ten days after it receives the determination by the Regional Administrator. If a determination is made by either the grantee or the Regional Administrator which is favorable to the complainant, the terms of the solicitation must be revised or the contract must be awarded (as appropriate) in accordance with such determination.

(e) *Enforcement.* Noncompliance with the provisions of this subchapter affecting procurement will result in (1) total

or partial termination of the grant pursuant to § 35.950, (2) ineligibility for grant assistance which could otherwise be awarded under this subchapter or (3) disallowance of project costs (see § 35.940-2(j)) incurred in violation of the provisions of this subchapter or applicable Federal laws, as determined by the Regional Administrator. The grantee may appeal adverse determinations by the Regional Administrator in accordance with the Disputes Article (Article 7 of Appendix A to Subchapter B of this title).

§ 35.940 Determination of allowable costs.

The grantee will be paid, upon request, in accordance with § 35.945, for the Federal share of all necessary costs within the scope of the approved project and determined to be allowable in accordance with § 30.701 of this chapter, this subpart, and the grant agreement.

§ 35.940-1 Allowable project costs.

Allocable project costs of the grantee which are reasonable and necessary are allowable. Necessary costs may include, but are not limited to:

(a) Costs of salaries, benefits, and expendable material incurred by the grantee for the project, except as provided in § 940-2(g).

(b) Costs under construction contracts.

(c) Professional and consultant services.

(d) Facility planning directly related to the treatment works.

(e) Sewer system evaluation (§ 35.927).

(f) Project feasibility and engineering reports.

(g) Costs required pursuant to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. 4621 et seq., 4651 et seq.), and regulations issued thereunder (Part 4 of this chapter).

(h) Costs of complying with the National Environmental Policy Act, including costs of public notices and hearings.

(i) Preparation of construction drawings, specifications, estimates, and construction contract documents.

(j) Landscaping.

(k) Supervision of construction work.

(l) Removal and relocation or replacement of utilities, for which the grantee is legally obligated to pay.

(m) Materials acquired, consumed, or expended specifically for the project.

(n) A reasonable inventory of laboratory chemicals and supplies necessary to initiate plant operations.

(o) Development and preparation of an operation and maintenance manual.

(p) Project identification signs (§ 30.604-4 of this chapter).

§ 35.940-2 Unallowable costs.

Costs which are not necessary for the construction of a treatment works project are unallowable. Such costs include, but are not limited to:

(a) Basin or areawide planning not directly related to the project;

(b) Bonus payments not legally required for completion of construction in advance of a contractual completion date;

(c) Personal injury compensation or damages arising out of the project, whether determined by adjudication, arbitration, negotiation, or otherwise;

(d) Fines and penalties resulting from violations of, or failure to comply with, Federal, State, or local laws;

(e) Costs outside the scope of the approved project;

(f) Interest on bonds or any other form of indebtedness required to finance the project costs;

(g) Ordinary operating expenses of local government, such as salaries and expenses of a mayor, city council members, or city attorney, except as provided in § 35.940-4.

(h) Site acquisition (for example, sewer rights-of-way, sewage treatment plant sites, sanitary landfills and sludge disposal areas) except as otherwise provided in § 35.940-3(a).

(i) Costs for which payment has been or will be received under another Federal assistance program.

(j) Costs of equipment or material procured in violation of § 35.938-4(h).

§ 35.940-3 Costs allowable, if approved.

Certain direct costs are sometimes necessary for the construction of a treatment works and are allowable if reasonable and approved by the Regional Administrator in the grant agreement or a grant amendment. Such costs include, but are not limited to:

(a) Land acquired after October 17, 1973, that will be an integral part of the treatment process or that will be used for ultimate disposal of residues resulting from such treatment (for example, land for spray irrigation of sewage effluent).

(b) Acquisition of an operable portion of a treatment works.

(c) Rate determination studies required pursuant to § 35.925-11.

§ 35.940-4 Indirect costs.

Indirect costs of the grantee shall be allowable in accordance with an indirect cost agreement negotiated and incorporated in the grant agreement. An indirect cost agreement must identify those cost elements allowable pursuant to § 35.940-1. Where the benefits derived from a grantee's indirect services cannot be readily determined, a lump sum for overhead may be negotiated based upon a determination that such amount will be approximately the same as the actual indirect costs that may be incurred.

§ 35.940-5 Disputes concerning allowable costs.

The grantee should seek to resolve any questions relating to cost allowability or allocation at its earliest opportunity (if possible, prior to execution of the grant agreement). Final determinations concerning the allowability of costs shall be conclusive unless appealed within 30 days in accordance with the "Disputes" article (Article 7) of the EPA General

Grant Conditions (Appendix A, Subchapter B of this title).

§ 35.945 Grant payments.

The grantee shall be paid the Federal share of allowable costs incurred within the scope of an approved project, subject to the limitations of §§ 35.925-18, 35.930-5, and 35.930-6; *Provided*, That such payments must be in accordance with the payment schedule and the grant amount set forth in the grant agreement and any amendments thereto. The payment schedule will provide that payment for Step 1 and Step 2 project work will be made only on the basis of completion of the step or, if specified in the payment schedule in the grant agreement, upon completion of specific tasks within the step. All allowable costs incurred prior to initiation of construction of the project must be claimed in the application for grant assistance for that project prior to the award of such assistance or no subsequent payment will be made for such costs.

(a) *Initial request for payment.* Upon award of grant assistance, the grantee may request payment for the unpaid Federal share of actual or estimated allowable project costs incurred prior to grant award subject to the limitations of §§ 35.925-18, and payment for such costs shall be made in accordance with the negotiated payment schedule included in the grant agreement.

(b) *Interim requests for payment.* The grantee may submit requests for payments for allowable costs incurred in accordance with the negotiated payment schedule included in the grant agreement. Upon receipt of a request for payment, subject to the limitations set forth in § 30.602-1 of this subchapter and §§ 35.935-12, 35.935-13, and 35.935-16, the Regional Administrator shall cause to be disbursed from available appropriated funds such amounts as are necessary so that the total amount of Federal payments to the grantee for the project is equal to the Federal share of the actual or estimated allowable project costs incurred to date, as certified by the grantee in its most recent request for payment. Generally, payments will be made within 20 days after receipt of a request for payment.

(c) *Adjustment.* At any time or times prior to final payment under the grant, the Regional Administrator may cause any request(s) for payment to be reviewed or audited. Each payment therefore made shall be subject to reduction for amounts included in the related request for payment which are found, on the basis of such review or audit, not to constitute allowable costs. Any payment may be reduced for overpayments or increased for underpayments on preceding requests for payment.

(d) *Refunds, rebates, credits, etc.* The Federal share of any refunds, rebates, credits, or other amounts (including any interest thereon) accruing to or received by the grantee with respect to the project, to the extent that they are properly allocable to costs for which the grantee

has been paid under a grant, must be credited to the current State allotment or paid to the United States. Reasonable expenses incurred by the grantee for the purpose of securing such refunds, rebates, credits, or other amounts shall be allowable under the grant when approved by the Regional Administrator.

(e) *Final payment.* Upon completion of final inspection pursuant to § 35.935-14 and approval of the request for payment designated by the grantee as the "final payment request" and upon compliance by the grantee with all applicable requirements of this subchapter and the grant agreement, the Regional Administrator shall cause to be disbursed to the grantees any balance of allowable project cost which has not been paid to the grantee. The final payment request must be submitted by the grantee promptly after final inspection. Prior to final payment under the grant, the grantee must execute and deliver an assignment to the United States, in form and substance satisfactory to the Regional Counsel, of the Federal share of refunds, rebates, credits or other amounts (including any interest thereon) properly allocable to costs for which the grantee has been paid by the Government under the grant, and a release discharging the United States, its officers, agents, and employees from all liabilities, obligations, and claims arising out of the project work or under the grant, subject only to such exceptions which may be specified in the release.

§ 35.950 Suspension or termination of grants.

Grants may be suspended, in accordance with § 30.902 of this subchapter and Article 4 of the General Grant Conditions (Appendix A to this subchapter), or terminated, in accordance with § 30.903 of this subchapter and Article 5 of the General Grant Conditions (Appendix A of this subchapter). The State agency shall be concurrently notified in writing of any such suspension or termination action.

§ 35.955 Grant amendments to increase grant amounts.

Grant agreements may be amended in accordance with § 30.901 of this chapter with respect to project changes which have been approved in accordance with § 30.900 and § 35.935-11 of this subchapter: *Provided*, That no grant agreement may be amended to increase the amount of a grant unless the State agency has approved the grant increase from available State allotments and reallotments in accordance with § 35.915.

§ 35.960 Disputes.

Final determinations by the Regional Administrator concerning ineligibility of projects for which priority has been determined in accordance with § 35.915 and final determinations by the Regional Administrator concerning disputes arising under a grant pursuant to this subpart shall be final and conclusive unless ap-

pealed by the applicant or grantee within 30 days from the date of receipt of such final determination in accordance with the "Disputes" article of General Grant Conditions (Article 7 of Appendix A to this subchapter).

APPENDIX A

COST EFFECTIVENESS ANALYSIS GUIDELINES

a. *Purpose.*—These guidelines provide advisory information concerning basic methodology for determining the most cost-effective waste treatment management system or the most cost-effective component part of any waste treatment management system.

b. *Authority.*—The guidelines contained herein are provided pursuant to section 212 (2) (C) of the Federal Water Pollution Control Act Amendments of 1972 (the Act).

c. *Applicability.*—These guidelines apply to the development of plans for and the selection of component parts of a waste treatment management system for which a Federal grant is awarded under 40 CFR, Part 35.

d. *Definitions.*—Definitions of terms used in these guidelines are as follows:

(1) *Waste treatment management system.*—A system used to restore the integrity of the Nation's waters. Waste treatment management system is used synonymously with complete waste treatment system as defined in 40 CFR, Part 35.905-3.

(2) *Cost-effectiveness analysis.*—An analysis performed to determine which waste treatment management system or component part thereof will result in the minimum total resources costs over time to meet the Federal, State or local requirements.

(3) *Planning period.*—The period over which a waste treatment management system is evaluated for cost-effectiveness. The planning period commences with the initial operation of the system.

(4) *Service life.*—The period of time during which a component of a waste treatment management system will be capable of performing a function.

(5) *Useful life.*—The period of time during which a component of a waste treatment management system will be required to perform a function which is necessary to the system's operation.

e. *Identification, selection and screening of alternatives.*—(1) *Identification of alternatives.*—All feasible alternative waste management systems shall be initially identified. These alternatives should include systems discharging to receiving waters, systems using land or subsurface disposal techniques, and systems employing the reuse of wastewater. In identifying alternatives, the possibility of staged development of the system shall be considered.

(2) *Screening of alternatives.*—The identified alternatives shall be systematically screened to define those capable of meeting the applicable Federal, State, and local criteria.

(3) *Selection of alternatives.*—The screened alternatives shall be initially analyzed to determine which systems have cost-effective potential and which should be fully evaluated according to the cost-effectiveness analysis procedures established in these guidelines.

(4) *Extent of effort.*—The extent of effort and the level of sophistication used in the cost-effectiveness analysis should reflect the size and importance of the project.

f. *Cost-effective analysis procedures.*—(1) *Method of Analysis.*—The resources costs shall be evaluated through the use of opportunity costs. For those resources that can be

expressed in monetary terms, the interest (discount) rate established in section (f) (5) will be used. Monetary costs shall be calculated in terms of present worth values or equivalent annual values over the planning period as defined in section (f) (2). Non-monetary factors (e.g., social and environmental) shall be accounted for descriptively in the analysis in order to determine their significance and impact.

The most cost-effective alternative shall be the waste treatment management system determined from the analysis to have the lowest present worth and/or equivalent annual value without overriding adverse non-monetary costs and to realize at least identical minimum benefits in terms of applicable Federal, State, and local standards for effluent quality, water quality, water reuse and/or land and subsurface disposal.

(2) *Planning period.*—The planning period for the cost-effectiveness analysis shall be 20 years.

(3) *Elements of costs.*—The costs to be considered shall include the total values of the resources attributable to the waste treatment management system or to one of its component parts. To determine these values, all monies necessary for capital construction costs and operation and maintenance costs shall be identified.

Capital construction costs used in a cost-effectiveness analysis shall include all contractors' costs of construction including overhead and profit; costs of land, relocation, and right-of-way and easement acquisition; design engineering, field exploration, and engineering services during construction; administrative and legal services including costs of bond sales; startup costs such as operator training; and interest during construction. Contingency allowances consistent with the level of complexity and detail of the cost estimates shall be included.

Annual costs for operation and maintenance (including routine replacement of equipment and equipment parts) shall be included in the cost-effectiveness analysis. These costs shall be adequate to ensure effective and dependable operation during the planning period for the system. Annual costs shall be divided between fixed annual costs and costs which would be dependent on the annual quantity of wastewater collected and treated.

(4) *Prices.*—The various components of cost shall be calculated on the basis of market prices prevailing at the time of the cost-effectiveness analysis. Inflation of wages and prices shall not be considered in the analysis. The implied assumption is that all prices involved will tend to change over time by approximately the same percentage. Thus, the results of the cost effectiveness analysis will not be affected by changes in the general level of prices.

Exceptions to the foregoing can be made if there is justification for expecting significant changes in the relative prices of certain items during the planning period. If such cases are identified, the expected change in these prices should be made to reflect their future relative deviation from the general price level.

(5) *Interest (discount) rate.*—A rate of 7 percent per year will be used for the cost-effectiveness analysis until the promulgation of the Water Resources Council's "Proposed Principles and Standards for Planning Water and Related Land Resources." After promulgation of the above regulation, the rate established for water resource projects shall be used for the cost-effectiveness analysis.

(6) *Interest during construction.*—In cases where capital expenditures can be expected to be fairly uniform during the construction

period, interest during construction may be calculated as $I \times \frac{1}{2} P \times C$ where:

I = the interest (discount) rate in Section 1(5).

P = the construction period in years.

C = the total capital expenditures.

In cases when expenditures will not be uniform, or when the construction period will be greater than three years, interest during construction shall be calculated on a year-by-year basis.

(7) *Service life.*—The service life of treatment works for a cost-effectiveness analysis shall be as follows:

Land Structures	Permanent 30-50 years
(includes plant buildings, concrete process tankage, basins, etc.; sewage collection and conveyance pipelines; lift station structures; tunnels; outfalls)	
Process equipment	15-30 years
(includes major process equipment such as clarifier mechanisms, vacuum filters, etc.; steel process tankage and chemical storage facilities; electrical generating facilities on standby service only).	
Auxiliary equipment	10-15 years
(includes instruments and control facilities; sewage pumps and electric motors; mechanical equipment such as compressors, aeration systems, centrifuges, chlorinators, etc.; electrical generating facilities on regular service).	

Other service life periods will be acceptable when sufficient justification can be provided.

Where a system or a component is for interim service and the anticipated useful life is less than the service life, the useful life shall be substituted for the service life of the facility in the analysis.

(8) *Salvage value.*—Land for treatment works, including land used as part of the treatment process or for ultimate disposal of residues, shall be assumed to have a salvage value at the end of the planning period equal to its prevailing market value at the time of the analysis. Right-of-way easements shall be considered to have a salvage value not greater than the prevailing market value at the time of the analysis.

Structures will be assumed to have a salvage value if there is a use for such structures at the end of the planning period. In this case, salvage value shall be estimated using straightline depreciation during the service life of the treatment works.

For phased additions of process equipment and auxiliary equipment, salvage value at the end of the planning period may be estimated under the same conditions and on the same basis as described above for structures.

When the anticipated useful life of a facility is less than 30 years (for analysis of interim facilities), salvage value can be claimed for equipment where it can be clearly demonstrated that a specific market or reuse opportunity will exist.

APPENDIX B

FEDERAL GUIDELINES

USER CHARGES FOR OPERATION AND MAINTENANCE OF PUBLICLY OWNED TREATMENT WORKS

(a) *Purpose.*—To set forth advisory information concerning user charges pursuant to Section 204 of the Federal Water Pollution Control Act Amendments of 1972, PL 92-500,

hereinafter referred to as the Act. Applicable requirements are set forth in Subpart E (40 CFR Part 35).

(b) *Authority.*—The Authority for establishment of the user charge guidelines is contained in section 204(b)(2) of the Act.

(c) *Background.*—Section 204(b)(1) of the Act provides that after March 1, 1973, Federal grant applicants shall be awarded grants only after the Regional Administrator has determined that the applicant has adopted or will adopt a system of charges to assure that each recipient of waste treatment services will pay its proportionate share of the costs of operation and maintenance, including replacement. The intent of the Act with respect to user charges is to distribute the cost of operation and maintenance of publicly owned treatment works to the pollutant source and to promote self-sufficiency of treatment works with respect to operation and maintenance costs.

(d) *Definitions.*—(1) *Replacement.*—Expenditures for obtaining and installing equipment, accessories, or appurtenances which are necessary to maintain the capacity and performance during the service life of the treatment works for which such works were designed and constructed. The term "operation and maintenance" includes replacement.

(2) *User charge.*—A charge levied on users of treatment works for the cost of operation and maintenance of such works.

(e) *Classes of users.*—At least two basic types of user charge systems are common. The first is to charge each user a share of the treatment works operation and maintenance costs based on his estimate of measured proportional contribution to the total treatment works loading. The second system establishes classes for users having similar flows and waste water characteristics; i.e., levels of biochemical oxygen demand, suspended solids, etc. Each class is then assigned its share of the waste treatment works operation and maintenance costs based on the proportional contribution of the class to the total treatment works loading. Either system is in compliance with these guidelines.

(f) *Criteria against which to determine the adequacy of user charges.*—The user charge system shall be approved by the Regional Administrator and shall be maintained by the grantee in accordance with the following requirements:

(1) The user charge system must result in the distribution of the cost of operation and maintenance of treatment works within the grantee's jurisdiction to each user (or user class) in proportion to such user's contribution to the total wastewater loading of the treatment works. Factors such as strength, volume, and delivery flow rate characteristics shall be considered and included as the basis for the user's contribution to ensure a proportional distribution of operation and maintenance costs to each user (or user class).

(2) For the first year of operation, operation and maintenance costs shall be based upon past experience for existing treatment works or some other rational method that can be demonstrated to be applicable.

(3) The grantee shall review user charges annually and revise them periodically to reflect actual treatment works operation and maintenance costs.

(4) The user charge system must generate sufficient revenue to offset the cost of all treatment works operation and maintenance provided by the grantee.

(5) The user charge system must be incorporated in one or more municipal legislative enactments or other appropriate authority. If the project is a regional treatment works accepting wastewaters from treatment works owned by others, then the subscribers re-

ceiving waste treatment services from the grantee shall have adopted user charge systems in accordance with this guideline. Such user charge systems shall also be incorporated in the appropriate municipal legislative enactments or other appropriate authority.

(g) *Model user charge systems.*—The user charge system adopted by the applicant must result in the distribution of treatment works operation and maintenance costs to each user (or user class) in approximate proportion to his contribution to the total wastewater loading of the treatment works. The following user charge models can be used for this purpose; however, the applicant is not limited to their use. The symbols used in the models are as defined below:

C_r = Total operation and maintenance (O. & M.) costs per unit of time.

C_u = A user's charge for O. & M. per unit of time.

C_s = A surcharge for wastewaters of excessive strength.

V_c = O&M cost for transportation and treatment of a unit of wastewater volume.

V_u = Volume contribution from a user per unit of time.

V_r = Total volume contribution from all users per unit of time.

B_c = O&M cost for treatment of a unit of biochemical oxygen demand (BOD).

B_u = Total BOD contribution from a user per unit of time.

B_r = Total BOD contribution from all users per unit of time.

B = Concentration of BOD from a user above a base level.

S_c = O&M cost for treatment of a unit of suspended solids.

S_u = Total suspended solids contribution from a user per unit of time.

S = Concentration of SS from a user above a base level.

P_c = O&M cost for treatment of a unit of any pollutant.

P_u = Total contribution of any pollutant from a user per unit of time.

P_r = Total contribution of any pollutant from all users per unit of time.

P = Concentration of any pollutant from a user above a base level.

(1) *Model No. 1.*—If the treatment works is primarily flow dependent or if the BOD, suspended solids, and other pollutant concentrations discharged by all users are approximately equal, then user charges can be developed on a volume basis in accordance with the model below:

$$C_u = \frac{C_r}{V_r} (V_u)$$

(2) *Model No. 2.*—When BOD, suspended solids, or other pollutant concentrations from a user exceed the range of concentration of these pollutants in normal domestic sewage, a surcharge added to a base charge, calculated by means of Model No. 1, can be levied. The surcharge can be computed by the model below:

$$C_u = [B_c(B) + S_c(S) + P_c(P)] V_u$$

(3) *Model No. 3.*—This model is commonly called the "quantity/quality formula":

$$C_u = V_u V_c + B_c B_u + S_c S_u + P_c P_u$$

(b) *Other considerations.*—(1) Quantity discounts to large volume users will not be acceptable. Savings resulting from economies of scale should be apportioned to all users or user classes.

(2) User charges may be established based on a percentage of the charge for water usage only in cases where the water charge is based on a constant cost per unit of consumption.

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APPENDIX C - LIST OF REGIONAL OFFICES

APPENDIX C

Environmental Protection Agency
Region I
JFK Federal Building
Room 2203
Boston, Massachusetts 02203

Environmental Protection Agency
Region VI
1600 Patterson Street
Suite 1100
Dallas, Texas 75201

Environmental Protection Agency
Region II
26 Federal Plaza
Room 908
New York, New York 10007

Environmental Protection Agency
Region VII
1735 Baltimore Avenue
Kansas City, Missouri 64108

Environmental Protection Agency
Region III
Sixth and Walnut Streets
Philadelphia, Pennsylvania 19106

Environmental Protection Agency
Region VIII
1860 Lincoln Street
Suite 900
Denver, Colorado 80203

Environmental Protection Agency
Region IV
1421 Peachtree Street, N.E.
Atlanta, Georgia 30309

Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

Environmental Protection Agency
Region V
230 South Dearborn Street
Chicago, Illinois 60604

Environmental Protection Agency
Region X
1200 Sixth Avenue
Seattle, Washington 98101